

CHOICE

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**Unsafe cots
still on sale —
why?**

**Y2K: a survival
guide**

**How often does
this happen
to *your* car?**

**Find the most
reliable models
inside**

MORE TESTS: • Expensive vacuum cleaners
• Probiotic yoghurt • Antibacterial cloths • Garden
chipper/shredders

Why can you still buy unsafe cots?



Jane Mackenzie

You're shopping for a cot for your new baby or grandchild. You know the cot safety standard has been mandatory since June 30, 1998, so you expect every cot on sale (even secondhand ones) to be safe. This makes life easier, as you don't have to carry a tape measure to check for safe dimensions or search the cot and its packaging for some kind of certification that it's safe.

Does this sound — finally — like the ideal cot-buying scenario, especially after years of CHOICE tests finding that the

majority of cots on the market didn't meet the safety standard? It's the scenario we hoped for when we went shopping in March this year for the cots in the test in this issue (see page 17).

Instead, only three out of 11 cots tested substantially met most of the safety sections of the standard (such as head and limb entrapment, strangulation risk, stability, etc), and even they were marginal on one or two of the less life-threatening safety areas.

There were also examples of cots we'd bought that the manufacturers maintained were 'old' or 'superseded' models — if we'd tested their new version it would have passed, they reckon. So why was the old version still on sale after the standard had become mandatory? And how are you to know which is an old or new model when both have the same name?

Our test is of course only a snapshot of the whole cot market, but the findings are disappointing and frightening. Worse, most of the cots that failed the tests claimed to pass the safety standard or mentioned it in some other way — and two of the recommended models don't refer to the standard at all. So how are you to know, any better than before the standard was mandatory, which cots are safe to buy?

We know the regulators are working hard to make cot suppliers more aware of the importance of good cot design and manufacture with safety at the forefront. But it's clearly not happening fast enough. For now, keep taking your tape measure with you when you go to buy a cot.

Jane Mackenzie, Editor

Your letters

We welcome the letters you send us — please always include a daytime telephone number so we can contact you quickly if we want to follow up your letter. We're sorry we can't personally answer every letter we receive, but we do use them in our research. Thanks for taking the time to keep in touch.

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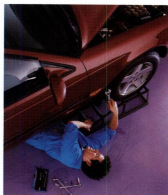
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Psst! Wanna buy a car? Want a model with a track record of good reliability? Find out here which makes and models break down less often ...



Cover photo: Kent Mears

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Crazy claims, over-the-top ads — the ridiculous, the outrageous or the plain misleading.

**FRIDGE
and
FREEZER**
MICROWAVE REHEATABLE

Remove lid before use
Airtight • Stackable
QUALITY FOOD STORAGE
MADE IN AUSTRALIA

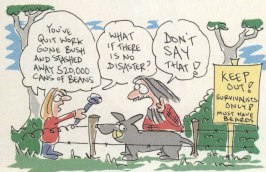


▲ Is there anything in this food container's instructions that you might have thought of for yourself? See page 52 for more.

Choice Reports

24 Y2K & you

Worried about the world coming to an end on January 1 — or, at the very least, finding yourself without money, water, electricity or phones for a few days, or appliances not working properly? Here's what is and isn't likely to happen, and how to prepare for it.



32 How to buy a used car

Buying a secondhand car can be a challenge. How do you avoid buying a dud? And which models regularly have problems you should know about?

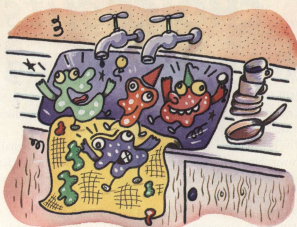
Choice Tests

14 Yoghurt for inner balance

If you believe the ads, all you need to restore your natural intestinal balance is ... a tub of yoghurt. What's the evidence? And do the major brands of probiotic yoghurts and drinks deliver the goods?

17 Cots: still not safe enough

We found most of the 11 cots on test to be potentially unsafe. Considering how long the mandatory safety standard's been a fact of life, this isn't good enough.

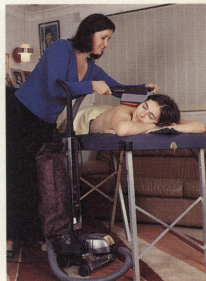


29 Where has your dishcloth been today?

The ads would have you believe it's been sitting around the kitchen hosting parties for multitudes of dangerous bacteria whose sole purpose in life is to make you and your family sick. Can antibacterial cloths and sponges save you, or is it just more hype?

39 Taken to the cleaners?

At the price end of the market, a vacuum cleaner can set you back thousands of dollars. It may have a massage pad attachment or an air freshening system, but will it clean your house any better than a \$200 model?



44 Chip, shred, mulch ...

Chipper-shredders are likely to become more popular as local councils crack down on the collection of garden waste. Which models are best for the job, and what do you need to look out for when buying?

Your subscription and the GST

The GST will be applied from July 1, 2000. If any issues of CHOICE in your subscription period go past this date, we're required to charge you GST on them. So if you subscribe or renew your subscription any time between August 1999 and the end of June next year, some of the issues will attract the tax. After July 1, GST will apply to the whole subscription.

The order form on page 49 shows the subscription prices for periods starting from the next issue, and they'll be updated every month up to July 2000. If you have any queries about this, please call CHOICE Consumer Services on (02) 9577 3399 (or see the bottom of page 2 — far left — for further contact details).

Slimy advertising

FLEUR HERSCOVITCH, WHOSE MOTHER HAS DEMENTIA, was extremely distressed when she received a brochure advertising a nutritional supplement called GH3.

The brochure declares that "age spots on your skin signal that a brown slime is forming on the neurones of your brain!" Senility and "the awful Alzheimer's disease" might be avoidable, it implies. The dreaded slime — lipofuscin — is caused by "a deficiency of some essential brain nutrients", so a supplement could help. Grateful users are quoted, claiming that GH3 has improved everything from their sex lives to back problems and asthma. After about five months on GH3, one case study's "hair returned to its natural colour and grew back where it had fallen out. A year later, at 68, her wisdom teeth appeared."

The brochure calls itself an "article" and, as it contains many long medical terms and impressive-sounding studies, it might seem convincing at first sight.

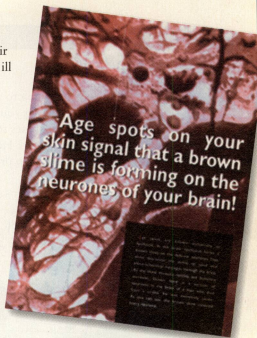
We're not in a position to fully evaluate its claims, but we're unimpressed by what we have found. For starters, according to the brochure, Alzheimer's disease was discovered in 1970 — unlikely, as Alzheimer died in 1915. He in fact first described the illness in 1906, publishing his findings in 1907.

CHOICE contacted some of the eminent scientists quoted in the brochure. Those who responded were not aware their work was being used and didn't back the brochure's claims. Two

commented that their studies involved the ill effects of a *severe* deficiency of some nutrients, which could accelerate some age-related changes. According to one, there's "no evidence that supplementation with these nutrients above the normal levels of intake is beneficial in preventing age-related changes" in the brain or retina.

As for the claim that age spots and dementia might be linked, the scientist says, "The only relationship between 'age spots' on the skin and brain lipofuscin is that both increase with aging."

Professor Henry Brodaty, professor of psychogeriatrics at UNSW, agrees that the claim "seems pretty fanciful", and doubts that GH3 would help anybody with Alzheimer's disease.



Don't believe everything you read ...



Over 100,000 Australians lost their money in fraudulent and illegal investments in the last 10 years. Here we review the latest investment news from the Australian Securities and Investments Commission (ASIC) and give you tips on how to avoid investment pitfalls. For further information call the ASIC infoline on 1300 300 630 or check its website on www.asic.gov.au.

Financial adviser deceives elderly clients

A former Newcastle financial adviser was sentenced to six years in jail after misappropriating \$1.4 million of his clients' funds.

The adviser defrauded eight elderly clients of about \$1 million: over a period of seven years he forged client redemption requests for withdrawal of the funds. He also misappropriated \$420,000 from two other clients.

The adviser was the authorised representative of a financial services company when he committed the offences. ASIC has now banned him for life from working as an authorised representative.

In a different case, a Tasmanian investment adviser was sentenced to four years in jail for misappropriating over \$400,000 from 11 clients, including retirees. ASIC has banned her for life from working as an investment adviser.

She defrauded her clients by asking them to make cheques payable to an investment company. Instead of paying these cheques into the accounts of her clients, she paid them into her own account with the company. None of her clients received an official receipt from the investment company.

What should you know about your financial adviser?

Every financial adviser (also called financial planner or investment adviser) must hold either a licence from ASIC or a 'proper authority' from an adviser who is licensed. Appropriate tertiary

qualifications like a business or finance degree and at least two years' employment in the securities industry are also required.

The adviser must give you an Advisory Services Guide, which should help you understand the nature of the advisory services they offer, and give you information about fees and commissions.

CHOICE advice

Only use a financial adviser who gives you an Advisory Services Guide, and check on the ASIC website or phone the infoline (see above) to make sure they either have a licence or a 'proper authority'.

Also keep track of your investment yourself:

- Read all the information you receive from your adviser. If there's something you don't understand, ask them for an explanation or take it to a solicitor or accountant. Never sign a document you haven't understood even if you're told you don't need to read it. You can also contact ASIC to check whether the document is legal.

- Make your cheques payable to the company/fund you want to invest in and add "for the account of (insert your name)". Never make cheques payable to your adviser.

Intelligent microwave oven

DON'T KNOW HOW TO COOK THE TV dinner you bought? Or worried that it may contain ingredients you want to avoid, but couldn't tell from the label? No worries — an 'intelligent' microwave oven should (one day real soon) be able to sort it all out for you.

The theory is that you'll just swipe the packaging over a barcode scanner on the oven's front panel and it'll cook it for you just as the maker intended — or warn you if the meal contains something you've told the oven you want to avoid.

A research team at the Department of Food Science at Rutgers University in the US is working with the electronics company Samsung, a scanner technology company and a food company on a prototype of an intelligent microwave oven (IMWO) that can do this.

Professor Kit Yam of the research team says the technology doesn't apply only to precooked meals. "The barcode scanner can prompt the IMWO to play a video

teaching the consumer step-by-step how to prepare the meal correctly (mixing ingredient A with B, etc). After the meal is ready to cook, the IMWO will cook it automatically.

"In future prototypes, the IMWO will also have the ability to learn the personal preferences of the consumer."

According to Professor Yam, the IMWO is more than a multipurpose oven. It'll even monitor your food inventory and send a shopping list to the grocery store via the Internet.

Trials of the oven are due to start late this year or early next. If they prove successful, the first commercially



manufactured intelligent microwave oven could be expected on the market in about one to two years. Until then, you'll just have to keep doing all that hard work yourself.

Update

Car insurance

CHOICE, August 1999

On page 19 we said **SUNCORP-METWAY** automatically included car hire after an accident in its policy.

SUNCORP-METWAY has now told us it gave us the wrong information. In fact, it only offers car hire after theft.

The new score for this policy is 66% (down from 70%).

Dishwashers

CHOICE, June 1999

The table on page 46 noted that the following models are available in a mobile version: **BOSCH**

SGS4002AU and **Aquasensor**
SGS5302AU, **SIMPSON Silencio**
52B850WF and **52B980 WF**, and the **WESTINGHOUSE Freestyle 920**.

The manufacturers have now told us that none of these dishwashers can be bought in a mobile form, but all have to be converted by the consumer by purchasing a mobile kit or castors, etc.

The **BENDIX DWN 38 LB** also requires modification to be mobile.

Corrections

Car insurance

CHOICE, August 1999

On page 21, in the policy features table, we said **RACQ-GIO** doesn't have excess options. In fact customers can remove the basic excess for an increased premium.

Washing machines

CHOICE, July 1999

The following models don't have heaters, contrary to what was stated in the table: **FISHER & PAYKEL Excellence GW509, GW609 and GW709**, and **WHIRLPOOL 5132E**. The **F&P**s add hot water to bring the water temperature up to 20°C when a cold wash is selected. The **WHIRLPOOL** draws in water to regulate the water temperature if it's either too hot or too cold (and the same is true for the **WHIRLPOOL 6245E**). This function won't work if any of these machines is connected only to a cold tap.

Dishwashers

CHOICE, June 1999

The **DISHLEX Global DX300** doesn't have the delayed-start button mentioned in its profile on page 44.

Choice cuts

CHOICE, August 1999

Travel compensation fund hotline

In *Travel club warning* on page 5 the phone number for the Travel Compensation Fund claims hotline was incorrect. Phone **1800 021 024** if you have a claim relating to money lost due to a travel agent's collapse or mishandling of funds.

- Always request receipts and keep all the paperwork in a safe place. Never let your adviser keep them.
- If you don't get a receipt from the company you invested in within four or five weeks, contact it.
- Check how often the company you invested in will send you a statement. Usually this would be at least twice a year. If your statement is late, check with the company.
- If you're ill or have to go away for a long time and want your adviser to look after everything, choose an independent person you trust to receive and check regular reports from them about your investments.

Last year CHOICE conducted a study of financial planners (see CHOICE, October 1998). You can use this study to find out what to expect from your financial adviser.

You can also contact the Financial Planning Association (FPA) on 1800 626 393 (website www.fpa.asn.au) to get the free booklets *Don't Kiss Your Money Goodbye* and *Understanding Risk to Achieve your Financial Goals*. The FPA can also give you a list of licensed advisers in your state.

Toaster trauma

CAN SOMETHING BE CONSIDERED safe simply because it carries a written warning about its potential danger? We think not.

A Sydney-based social worker told us about a toaster bought for one of her clients, who speaks very little English and only has partial vision. When they tried out the toaster on its highest setting, the pop-up timer mechanism failed and the bread caught fire, shooting flames from the toaster.

According to the NSW Department of Fair Trading, which investigated the matter, the manufacturer says it's not an uncommon problem, and was caused by an electrical circuitry fault. The safety standard for toasters allows for such malfunctions and specifies that there must be a warning label attached to the toaster cord with an instruction to keep an eye on

**WARNING— TOASTER MUST BE WATCHED WHEN IN USE.
BREAD MAY BURN. !!
TOASTER SHOULD NOT BE USED NEAR OR BELOW
CURTAINS OR OTHER COMBUSTIBLE MATERIALS.**

Not everyone can read a label. It's not enough to label a potential risk — instead, manufacturers should prevent it.

the toast (see above). The toaster met these labelling requirements, and therefore, according to the standard, can be considered safe to use.

Whether people can in fact read the warning label is not an issue where the standard is concerned: there's a disclaimer stating that it doesn't take 'infirm persons' — presumably including people with impaired vision — into account. Nor, apparently, is the fact that some people can't read English considered.

For this reason, CHOICE considers the standard inadequate. It should take *all*

potential users into account by requiring that products are made safer by means of their design and technology — not through the strategic use of warning labels — and are tested over a wider range of conditions.

We've taken up the issue with Standards Australia, asking it to put more safety tests in the standard, including tests using the maximum setting.

In the meantime, be aware that toasters can be quite dangerous and, like all cooking appliances, shouldn't be left unattended while they're in use.



CHOICE is one of many consumer magazines from organisations worldwide that make up Consumers International. Get the lowdown on what's

happening with your fellow consumers around the world in World Consumer Snapshot.

■ Health drink?

Can you guess which product in *Test* magazine aroused the greatest interest among German consumers this year?

If you guessed fast cars, beer or sausages you'd be wrong. In fact it was green tea. *Test's* investigation of this trendy drink found more than half of the samples to be heavily contaminated with pesticide. So much for being healthy.

■ Not worth a bean

Beanie Babies — small, soft toy animals stuffed with pellets — have taken America by storm, and their creators, Ty Inc, raked in more than \$US250 million in sales last year. While most kids buy them because they're cute, others are hoping to turn their collection into big bucks, and with collectors offering as much as \$US600 for the rarer animals (which originally cost about \$US5 new), it's easy to understand their excitement.

However, *Zillions*, the US kids' consumer magazine, reports that it's not the pot of gold it appears. For a start,

you can't tell which ones will become rare: the company produces only limited numbers of each toy, then 'retires' them at random, whereupon they become more sought after. Since no-one knows which ones will be retired and when, collectors must snap up every one they can find — which translates to big bucks for Ty. The toys must be in mint condition, with their identification tags intact and undamaged. In fact a tag with a crease visible even only under a magnifying glass makes a Beanie Baby almost worthless.

The verdict? According to one Beanie expert, "They're not a good investment. Buy them because you love them."

■ The lengths we go to for you ...

Spare a thought for the person testing mosquito repellents for the UK's *Which?* magazine. He tested 77 repellents by applying the repellent to his arm, and then putting his arm into a cage of hungry mosquitoes. What a job! What dedication!



● YOURletters

The letter we published in May about a pre-purchase pest inspection that failed to detect live termites prompted this month's letter writer to warn home buyers to treat building inspection reports with caution too.

Home buyers beware — Part II

We can sympathise with Jan Dennis (*Your Letters*, May 1999) because we also hired a reputable company for a pre-purchase building inspection when we bought our house, and we're now facing huge costs and financial loss as a result of this company's failure to point out major problems. Our issue is not with termites but with the structure of the house, which is so poor that it's estimated to cost us more than \$200,000 to demolish and rebuild it.

We purchased our house with the intention of long-term ownership, so we were shocked to discover that it's of mostly single-brick construction — not solid double-brick, or cavity brick, or even brick veneer, just single-brick, 110 mm thick walls, two storeys high and more. One of these single-brick walls is over 8 m long and 7–8 m tall and completely unsupported (except at each end) by any piers or cross-walls along its length. This structure then supports a double-brick wall built on top of it.

It's doubtful that our house would support itself if it weren't partially built against the adjacent houses.

Needless to say, we're completely stunned that a professional building inspection company could fail to report on the basic poor-quality construction of the house. Isn't that the primary purpose of the inspection? The building inspection report

mentioned phrases such as "structurally sound" and "well presented", but we believe now that this inspection was so cursory that even very obvious defects weren't noticed. We wouldn't have bought this house if we'd known the facts.

We had intended that this would be the last house that we'd ever purchase and that we'd live here for many years. Patching up and making structural repairs as necessary to keep the house in a livable condition would be an ongoing liability and a constant stress. Renovations and improvements are out of the question. The only real alternative is to demolish and start again.

This has already caused us much anguish and expense so far in fees for solicitors, barristers and building consultants, all of whom support our position. But the building inspection company ignores us, even though we forwarded a copy of our consultant's defects report. That was several months ago, but the company hasn't responded or returned our telephone calls. We have no written response from the company whatsoever, even though we wrote to them nine months ago and had contacted them by phone some months earlier.

Our case is too big to be considered by the NSW Department of Fair Trading [a \$25,000 limit applies to Fair Trading Tribunal cases] and our only recourse seems to be

via the legal system, which will probably cost tens of thousands of dollars. Where is the accountability for these organisations?

**Bradley Watson
Rozelle, NSW**

When we asked the inspection company for comment, it said it couldn't take responsibility for this customer's problems and that he hadn't asked for a comment on the condition of the wall for additions when the inspection was done eight to nine years ago. If he had, the company would have told him to seek engineering advice. But he hadn't mentioned he'd want to extend in future. "Both the insurer and ourselves feel that there's no case to answer for a building that was constructed in a manner similar to many of the period," we were told.

So if you're getting an inspection for a house you may want to extend in future, tell the inspection company about it. It might help you avoid problems later on.

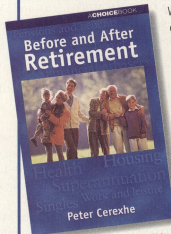
If you have a problem you can't resolve with a building

or pest inspection company, the relevant industry or professional association may be able to help. That's why it's so important to look for membership of such an organisation when you choose the inspection company. While it won't guarantee you a thorough job, at least there's someone to complain to if things go wrong.

Phone around before you sign up a company. When you've decided on one, ask how long it has been established, what qualifications and experience the person who'll do the report has and whether the company's indemnity insurance is up-to-date.

Then, if it belongs to an industry association, phone and check its membership status. Ask whether the association has an established complaint-handling process. If you're not satisfied with the service you received from the member company, will it send out an independent inspector to assess the problem and then mediate between you and the member company?

LETTER OF THE MONTH



We want to hear from you — your experiences help our research and often let other readers know about scams and rip-offs. To thank you for writing to us, *Your Letters* awards a prize of a CHOICE book to the 'Letter of the month'. This month's winner, Bradley Watson of Rozelle, NSW, receives *Before and after retirement*, or any other book of his choice from Consumer Bookshelf, pages 36 to 38.

We're sorry we don't have the resources to answer all your letters personally, and in the magazine we may edit them or print only an extract. See page 2 for how to reach us.

Psst! Wanna buy a car? Want one with a track record of good reliability? Read on.

How reliable is your car?

IN BRIEF

■ The most reliable makes of cars up to 10 years old are HONDA, SUZUKI, SUBARU, MAZDA, DAIHATSU and TOYOTA. The least reliable include HOLDEN, FORD, DAEWOO, LAND ROVER and SAAB.

■ The HONDA Civic stands out as a reliable choice for a secondhand car at any age up to the 10 years our survey covered.

■ If you're in the market for a new car, you can use these survey results to help you choose a make or model with a record of good reliability.

■ If you're planning to buy a secondhand car, these results can improve your chances of choosing a reliable one. You'll also find our article *How to buy a used car*, page 32, useful for identifying particular problems to which certain models are susceptible.

THIS YEAR WE HAD AN unprecedented response to our car reliability survey, with almost double the number of surveys returned compared with the last time. This means we can report on more cars than ever — 22 makes and 113 models.

The best ...

Among newer cars (those made between January 1995 and March 1998) the best makes overall were HONDA, TOYOTA, MAZDA, SUBARU and NISSAN.

There's a good choice of reliable models of various sizes for this age group too:

■ TOYOTA Camry MCV20 series V6 and SXV10 series 4-cylinder; Starlet; and Corolla (the model released from September 1994 on).

■ MAZDA 121 Sedan 4-door; and 626 4-cylinder (from July 1997 on).

■ HONDA Civic (from October 1995 on).

■ MITSUBISHI Mirage.

■ NISSAN Maxima.

Among the models that are five to seven years old (1992–94), the DAIHATSU Applause, TOYOTA Corolla, HONDA Civic, MAZDA 121 four-door sedan, and FORD Laser KE-KH are significantly more reliable than average.

For older cars (1988–91 models), the MAZDA 626 4-cylinder, HONDA Civic (up to September 1991), SUBARU Liberty and TOYOTA Camry SV20 series (four-cylinder) are similarly a good bet.

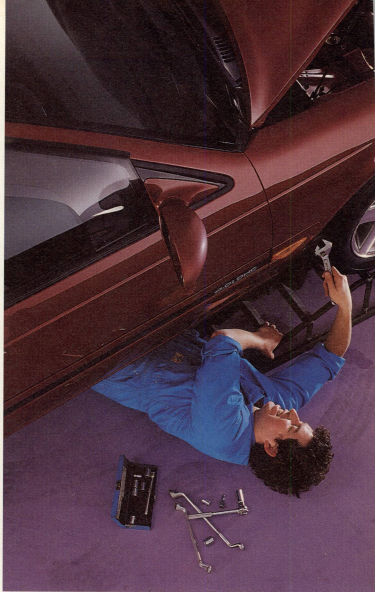
... and the worst

Of cars manufactured between 1995 and March 1998, LAND ROVER, SAAB, DAEWOO, FORD and HOLDEN were significantly worse than average for reliability in the survey.

The main problems affecting newer cars (1995–98) include faults with the body exterior, such as paintwork (but not rust), mirrors, locks (including central locking), and other miscellaneous leaks and rattles. Sixteen per cent of all newer cars in the survey had these problems, which — surprisingly — is a higher rate than for older cars (only 12% of cars in the 1992–94 group and 15% in the 1988–91 group had these problems with exterior fixtures).

Other problems affecting new cars are minor electrics (such as lights, radio, wiper motors, electric windows — 14% of cars), brakes (11%), interior finishing (9%) and steering (8%).

Looking at models, the worst for reliability in the newest group are the FORD Falcon EF 6-cylinder (which was likely to suffer more problems than average with its exterior, brakes, engine mechanicals, cooling, exhaust, minor electrics, steering, air con-





ditioning and cruise control) and the HOLDEN Commodore VT V6 (body exterior and interior, brakes, minor electrics and air conditioning). While not at the bottom of the list for the newest age group, the HOLDEN COMMODORE VS V6 and the FORD FALCON EL 6-cylinder are nevertheless also statistically significantly less reliable than average.

If you want to know more about what problems affect other cars, see the table on page 34 in the article *How to buy a used car*.

FORD Falcons feature prominently among the least reliable of the older cars: the FORD Falcon EB-ED V8 (1992-94 models), EB-ED and EF 6-cylinder (1992-94) and EA 6-cylinder (1988-91) were all much less reliable than average. In the 1992-94 group they were joined by the MITSUBISHI Magna TR-TS 4-cylinder, and for 1988-91 cars by the FORD Fairlane NA-NC 6-cylinder and the HOLDEN Commodore VL 6-cylinder and VN-VP V6. You'll see a few other models that you might want to beware of close to

the bottom of these age groups in Figure 2, (overleaf) but those mentioned here are the models whose reliability is, statistically, significantly worse than average.

Imported versus locally made

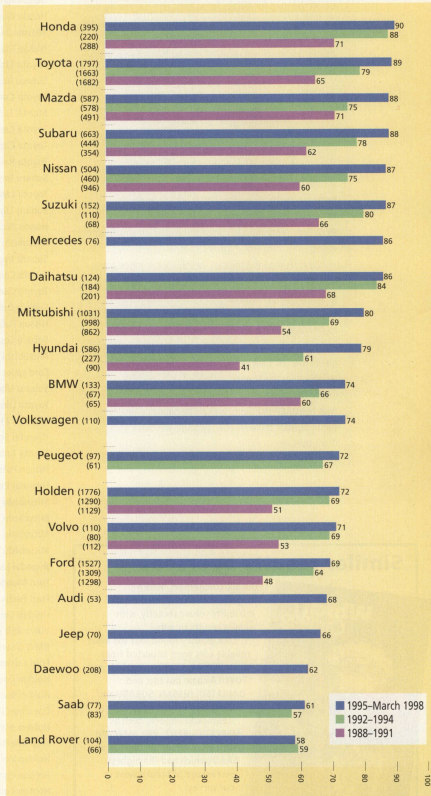
In the last few surveys locally made cars have lagged behind imported ones in terms of reliability. This time, however, the difference was less marked: newer (1995-98) locally made cars had a breakdown rate of 24% compared with 19% for imported models. Unfortunately, it's the breakdown rate for imported models that's gone up, not a dramatic improvement in local car reliability — last time they had a 25% breakdown rate.

The more reliable among newer local models include the TOYOTA Camry (see Figure 2 for model details) and TOYOTA Corolla. The least reliable include the HOLDEN Commodore VS and VT V6 and FORD Falcon EF and EL 6-cylinder.

Despite lower reliability, people remain very loyal to their locally made cars — 87% of owners said they'd buy the same model again, compared with 81% of owners of imported cars.

Figure 1. Car reliability by make: percentage that didn't break down

Figure 1 shows the percentage of cars for each make that didn't break down or need to be off the road for repairs for at least one day during the 12 months prior to our survey. The numbers in brackets after each make give the number of replies for each age group.



How reliable are the models?

Figure 2 shows, for each age group, the percentage of models in our survey that didn't break down or need to be off the road for repairs for at least one day during the 12 months before the survey. The numbers in brackets are the number of replies received for each model. Only models for which we received at least 50 replies in each age group are included.

How to read the graphs

The coloured bars show the percentage of cars in the survey that didn't have problems. The blue lines indicate how closely our survey results would be likely to match reality if we were able to survey all cars on the road: the shorter the black line is, the closer our results are likely to be to reality. The lines get shorter when there are:

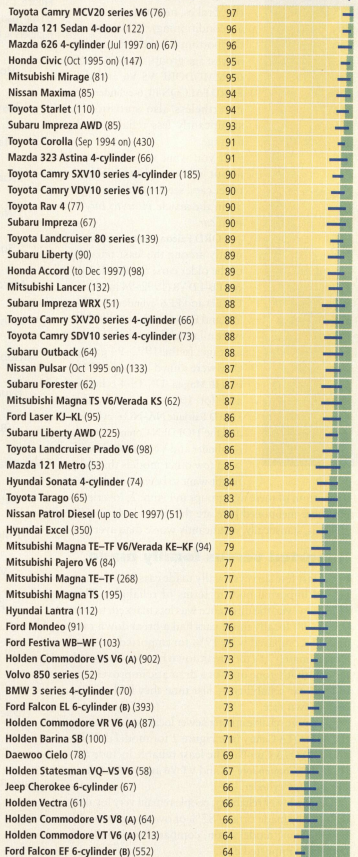
- A high number of responses for the model.
- A high proportion of cars without breakdowns for the model.

When comparing the cars' reliability it's important to look at the black lines. For example, in the 1995-98 group, the percentage (shown by the coloured bar) of **SUBARU Imprezas** without breakdown in the survey was higher than for the **HYUNDAI Sonata**. However, the reality lines for both models overlap each other — which means we can't say definitively that the **Impreza** is more reliable than the **Sonata**.

On the other hand, when we compare the **Impreza** with the **DAEWOO Cielo**, we can be highly confident that the **Impreza** is more reliable, because the black lines don't overlap.

Figure 2. Car reliability by model

Models 1995-March 1998 (% without breakdowns)

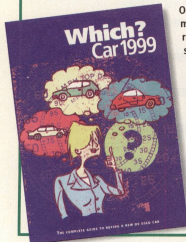


Similar results overseas

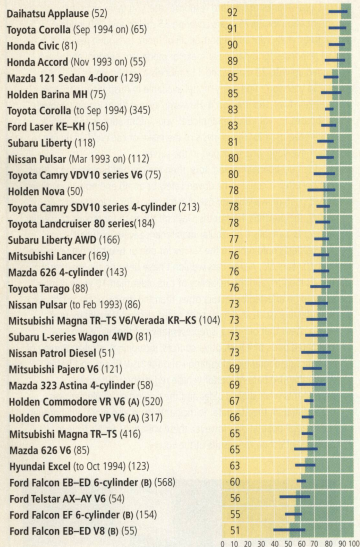
Our UK counterpart, *Which?* magazine, also conducted a car reliability survey recently, with similar results to ours.

Like us, they found that the most reliable cars were imported from Asia: **HONDA**, **MAZDA**, **PROTON** and **TOYOTA** came out top, and **DAIHATSU**, **NISSAN**, **SUBARU** and **SUZUKI** also scored well.

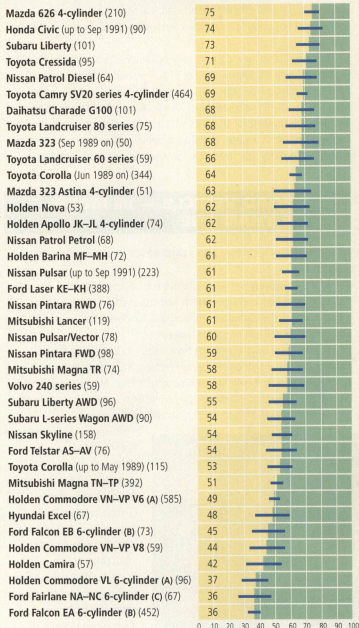
European imports, such as **MERCEDES-BENZ**, **VW**, **BMW** and **AUDI** were about average, as was **SAAB** (which had the highest percentage of breakdowns in our survey).



Models 1992–1994 (% without breakdowns)



Models 1988–1991 (% without breakdowns)



Recalls

There were more than 130 recall notices for motor vehicles during the 10-year period covered by our survey.

■ TOYOTA had 23 recalls, including nine for the Lexcen — essentially a rebadged HOLDEN Commodore — which has had all sorts of problems, from possible brake failure, headlight failure, seatbelt abrasion, distortion of the wheels and cruise control problems to leaking transmission fluid.

■ HOLDEN has had 20 recalls in the last 10 years. The Commodore in its varied forms has been recalled eight separate times, usually simultaneously with the TOYOTA Lexcen.

■ The luxury end of the market hasn't escaped the recall circus — topping the list is BMW with nine separate recalls in the last 10 years; RANGE ROVER is next with six recalls. MERCEDES BENZ, PEUGEOT, PORSCHE and VOLVO have also issued several recalls in this time.

(A) Includes Berlina and Calais models.

(B) Includes Fairmont and Futura models.

(C) Includes LTD models.



Four-wheel drives

Four-wheel drives aren't nicknamed Toorak taxis for nothing: while they're popular with rural residents, you'll still find more of them in the city than the country. But if you do ever venture off-road, you need to be especially confident it's not going to break down and leave you stranded in the middle of nowhere.

We found that in the most recent age bracket they're about as reliable as regular cars, with a breakdown rate of 21%. They also tend to be serviced more frequently than average.

However, not all four-wheel drives are equally reliable: **LAND ROVERS** rated well below the average for all makes, with a breakdown rate of 42%. They had more problems than average with their drivelines, engine mechanics, interior, minor electrics, body rust, steering, suspension and manual transmission.

OFF-ROAD VEHICLE — IN MORE WAYS THAN ONE

Mr Spears of NSW has owned both a **LAND ROVER Discovery** and a **TOYOTA Landcruiser**.

His 1994 **Discovery** was plagued with electrical problems with door locks, the clock, radio, horn and wiper switch, and loss of power steering. Other problems included a leaking transmission seal, handbrake failure, trouble engaging gears and leaking engine cooler pipes.

"In 30 years of owning new cars from makers such as Morris, Holden, Chrysler, Mitsubishi and Toyota, the only problem arising from manufacturing faults has been a faulty windscreen wiper on a Holden. Maybe some of the problems with the Land Rover could be normal wear and tear, but I've never experienced any such problems with other vehicles I've owned."

It may be cold comfort, but he's not alone in his sufferings: last year **CHOICE** reported a similar scenario in an article on faulty cars (*Lemon laws*, May 1998). Brian and Sue McLachlan of NSW (in photo) bought a 1996 **LAND ROVER**

Discovery that suffered from rust, electrical faults, pilling of the seat fabric and mechanical problems, all within six months of purchase. The company repaired all the faults and gave the McLachlans an extended warranty to cover the body for rust for another two years.

So far no more rust is showing, but Brian says the

car still hasn't been free from "niggling things" like the electric windows needing repair. While the **Discovery** suits their needs well, he says he'd think very carefully before buying another: "These little things take the shine off."

Our survey

A car reliability survey was mailed with every copy of **CHOICE** in March this year. Thanks to a record response rate, you gave us useful information for 26,757 cars covering 35 makes and 169 models. Unfortunately we can't report on all of them: for sound results at least 50 responses for a particular make or model are needed, and so we ended up with 22 makes and 113 models to report on.

So you won't find every model available in Australia in this article — even if you reported on it. However, even if there weren't enough responses for your particular model, your information is still likely to have been used for the analysis of the make of car. We'd again like to thank everyone who took part in the survey.

The questionnaire asked how often the car had broken down (that is, how often it couldn't be driven safely or at all) and how many times it had been unavailable for use due to repairs for at least one day during the previous 12 months. Days off the road for repairs caused by accidents, vandalism or regular maintenance were excluded.

Readers could reply to the survey for one or two cars between one and 10 years old: newer cars wouldn't have been on the road for the full 12 months, and the reliability of cars older than 10 years is more likely to be affected by factors other than the design or the quality of manufacture (such as driving style or the degree of maintenance).

To check that our data is representative of the real world, we compared parts of it with other sources, including Australian Bureau of Statistics demographic information and the NSW Roads and Traffic Authority (RTA) data on motor vehicle registrants. Our survey participants were slightly older and the proportion of women was greater than in the RTA data. Participants were also more affluent than the general population. However, these variations won't have a dramatic effect on the results of the survey.



Your record response to our survey kept research staff busy analysing all the data.

Would you buy the same car again?

Having asked you about your car's reliability, we then asked whether you'd buy the same make and model again.

Most people were happy with the make of car they were driving, with an average of 93% saying they'd buy the same again. Among the more popular makes were **BMW**, **HONDA**, **MERCEDES BENZ**, **SUBARU**, **TOYOTA** and **MAZDA**.

There's a close relationship between loyalty and reliability for some models: for instance, **TOYOTA Camry** models and the **TOYOTA Corolla** rated well for both, while the **DAEWOO Cielo** and **HOLDEN Barina SB** were at the lower end of the scale on both. But for some models there was no obvious reason why their owners loved or hated them: there's obviously more to car loyalty than reliability.

Figure 3. Would you buy the same make again? (All age groups)

BMW (257)	98
HONDA (903)	98
LEXUS (61)	98
MERCEDES BENZ (165)	98
SUBARU (1452)	98
TOYOTA (5120)	98
PEUGEOT (178)	96
MAZDA (1652)	95
HOLDEN (4214)	94
VOLVO (306)	93
NISSAN (1888)	92
AUDI (89)	91
MITSUBISHI (2868)	91
VOLKSWAGEN (165)	90
DAIHATSU (508)	89
FORD (4113)	89
SAAB (206)	89
SUZUKI (332)	89
JEEP (80)	84
LAND ROVER (180)	83
HYUNDAI (906)	79
DAEWOO (217)	72



Figure 4. Would you buy the same model again? (1995 - March 1998 models)

TOYOTA Camry SXV10 series 4-cylinder (179)	97
SUBARU Liberty (89)	96
TOYOTA Camry MCV20 V6 (76)	96
TOYOTA Camry SDV10 series 4-cylinder (74)	96
SUBARU Liberty AWD (221)	95
SUBARU Outback (63)	95
HOLDEN Vectra (65)	94
SUBARU Impreza WRX (51)	94
TOYOTA Landcruiser 80 series (139)	94
SUBARU Forester (60)	93
NISSAN Maxima (82)	92
TOYOTA Corolla (426)	92
HOLDEN Commodore VS V6 (895)	91
MITSUBISHI Pajero V6 (84)	91
TOYOTA Camry SXV20 series 4-cylinder (64)	91
TOYOTA Camry VDV10 series V6 (112)	91
TOYOTA Landcruiser Prado V6 (96)	91
HONDA Accord (up to Dec 1997) (101)	89
HONDA Civic (Oct 1995 on) (148)	89
HOLDEN Statesman VR-VS V6 (56)	88
MITSUBISHI Mirage (81)	88
MAZDA 626 4-cylinder (Jul 1997 on) (67)	87
MITSUBISHI Magna TS V6/Verada KS (61)	87
NISSAN Pulsar (Oct 95 on) (134)	87
SUBARU Impreza AWD (83)	87
TOYOTA Tarago (62)	87
HOLDEN Commodore VS V8 (65)	86
MITSUBISHI Lancer (123)	86
MITSUBISHI Magna TS (190)	86
TOYOTA Starlet (105)	86
HOLDEN Commodore VR V6 (88)	85
HOLDEN Commodore VT V6 (208)	85
MITSUBISHI Magna TE-TF V6/Verada KE-KF (94)	85
NISSAN Patrol Diesel (up to Dec 1997) (50)	84
SUBARU Impreza (64)	84
BMW 3 series 4-cylinder (69)	83
FORD Falcon EL 6-cylinder (392)	83
FORD Laser KJ-KL (96)	82
FORD Falcon EF 6-cylinder (543)	81
MAZDA 121 Sedan 4-door (120)	80
MAZDA 323 Astina 4-cylinder (61)	80
MITSUBISHI Magna TE-TF (263)	80
VOLVO 850 series (55)	80
MAZDA 121 Metro (53)	79
TOYOTA Rav 4 (77)	79
JEEP Cherokee 6-cylinder (70)	77
FORD Mondeo (88)	76
HYUNDAI Sonata 4-cylinder (72)	75
FORD Festiva WB-WF (104)	74
HYUNDAI Lantra (111)	70
HOLDEN Barina SB (102)	66
HYUNDAI Excel (356)	66
DAEWOO Cielo (75)	37

Yoghurt for inner balance?

Is all you really need to restore your natural intestinal balance a tub of yoghurt? And do the major brands of probiotic yoghurts and drinks deliver the goods?

IN BRIEF

■ We tested six major brands of probiotic yoghurt and five fermented milk drinks to see if they contained enough 'friendly' bacteria to have a beneficial effect — some did and some didn't; see the table, far right.

■ We also looked at how the bacteria in the different brands survived the rigours of time — again, some brands fared well and some didn't. Either way it's best to buy these products as fresh as possible to increase your chances of getting what you're after — and don't keep them for too long in the fridge before using them.

■ What are 'functional foods' and why should you think twice before parting with your money for them? See page 16.

OUR GUTS CONTAIN SQUILLIONS OF bacteria — many of them friendly and essential for good health. They aid digestion, stimulate the immune system and inhibit the growth of food-poisoning and disease-causing bacteria. But because some bacteria *aren't* good for us, keeping the different types in balance plays an important role in our general health and wellbeing.

Healthy people have a good balance of intestinal micro-organisms, but several things (such as poor diet, stress, antibiotics, aging) can tip the scales in the direction of the 'bad' bacteria and put the whole system out of whack — and here's where, perhaps, probiotic bacteria can help.

What can probiotics do?

Probiotics are part of the larger family of 'functional foods' (see page 16), and many yoghurts are probiotic these days — they make up over 20% of the yoghurt market. They're preparations of live bacteria that are said to have a beneficial effect, bringing your system back into balance — or keeping it in good nick in the first place. The fermented drinks market, which makes similar claims, is growing as well.

Both are claimed to prevent and control diarrhoea, lessen the effects of lactose intolerance, relieve constipation, lower cholesterol, prevent and control thrush (a vaginal yeast infection) and even prevent bowel cancer, as well as stimulate the immune system.

That's the theory. Unfortunately most of these claims have only a limited scientific foundation. Most of the evidence to date is anecdotal, or comes

from studies conducted with only a small number of people or with animals.

While the principle of probiotic treatment to overcome many gut disorders is sound from a microbiological viewpoint, there are many variables in *(continued over page)*



WHAT TO BUY

These contained enough of all the types of bacteria claimed on the label. If you're not concerned about specific types, some of the others had enough *L. acidophilus* to have a beneficial effect. For the full results of our tests, see the table, right.

■ Of the **yoghurts**, **VAALIA**, **YOPLUS Light** and **NESTLÉ LC1** did well — each showed consistently high levels of their claimed probiotics in the different batches near the beginning of their shelf-life, and maintained high levels over four weeks.

VAALIA and **YOPLUS** did show some variation in levels of bifidobacteria between batches, with some going slightly below the desired amount; but all the other yoghurts tested were much worse, with consistently below one million per gram of this organism, and some well below (around 1000 per gram).

■ Of the **fermented milk drinks**, **YAKULT** and **VAALIA** are the best bets for containing enough bacteria. **YAKULT** consistently had the highest levels for *L. casei*, maintaining them to the end of the four weeks. **VAALIA** also kept consistently high levels of all the bacteria it claimed to contain, and was the only drink with high levels of bifidobacteria.

BIOS showed the steepest decline in levels of bacteria over the storage period.

Yoghurt and yoghurt-based drinks

1				Enough L. acidophilus?		Enough bifidobacteria?		Enough L. casei?		Enough L. rhamnosus GG strain?		
	Product (in alphabetical order)	Manufacturer	Calcium (g per 100 mL / g)	Claimed cultures	At start of shelf-life	Near end of shelf-life	At start of shelf-life	Near end of shelf-life	At start of shelf-life	Near end of shelf-life	At start of shelf-life	Near end of shelf-life
YOGHURT												
BORNHOFFEN	Natural yoghurt	Dairy Farmers	213	AB	✓✓	✓	✗	✗	na	na	na	na
JALNA	Skim milk natural yoghurt	Jalna Dairy Foods	180	ABC	✓✓	✓	✗	✗	✗	✗	na	na
NESTLÉ	LC1 vanilla flavoured yogurt	Nestlé	174	A	✓✓	✓✓	na	na	na	na	na	na
SKI	Breakfast Bio vanilla and honey reduced fat yogurt	Dairy Farmers	163	AB	✓	✗	✗	✗	na	na	na	na
VAALIA	French vanilla reduced fat flavoured yoghurt	Pauls	164	ABGG	✓✓	✓✓	✓✓	✓	na	na	✓✓	✓✓
YOPLUS	Light 100% natural reduced fat yogurt	National Foods	183	AB	✓✓	✓✓	✓✓	✓✓	na	na	na	na
DRINKS												
BULLA AB	Strawberry reduced fat drinking yogurt	Bulla	130	AB	✓	✓	✗	✗	na	na	na	na
BIOS	Fermented milk	Great Southern Foods	43	C	na	na	na	na	✓✓	✗	na	na
JALNA	Bio Garde Swiss vanilla drinking yoghurt	Jalna Dairy Foods	110	ABC	✓✓	✓✓	✗	✗	✓	✗	na	na
VAALIA	French vanilla drink	Pauls	ns	ABGG	✓✓	✓✓	✓✓	✓	na	na	✓✓	✓✓
YAKULT	Fermented milk drink	Yakult Australia	ns	C	na	na	na	na	✓✓	✓✓	na	na

na Not applicable — bacteria not claimed.

ns Not stated

1 Under test

The six brands of probiotic yoghurt and five brands of fermented milk in the test didn't include fruit-type yoghurts, and we bought low or reduced-fat types where available. For the drinks we chose the most popular flavour within the brand.

To reduce the effect of any 'dud' samples (for example, due to poor storage temperature during distribution or at the supermarket) we bought the products from different supermarkets over a three-month period. We deliberately bought yoghurts that still had a substantial shelf-life left (most commercial yoghurts and drinks have a shelf-life of at least 30 days), so we were testing them under 'best-case' conditions.

We bought three of each product and tested samples from each of them for live bacteria straightaway, then kept the remainder in a fridge (at 4°C) and tested again 14 and 28 days later — this showed us how well the bacteria survived.

2 Claimed cultures

These are the bacterial cultures that the manufacturers claim to have added to the yoghurt or drink.

A = *Lactobacillus acidophilus*.

B = *Bifidobacterium* species.

C = *Lactobacillus casei*.

GG = *Lactobacillus rhamnosus* GG strain.

3 Is there enough?

The rating scale is as follows:

- ✓✓ Contains enough of this type of bacteria to potentially have a beneficial effect.
- ✓ Doesn't have quite as many of this type of bacteria, but does come close.

✗ Doesn't contain enough of this type of bacteria to have a beneficial effect.

The amount of bacteria considered by scientists as necessary to have the desired effect is one million per gram of the food.

Claims that fool

Until recently there could be no health claims on food in Australia — for example, "This product can help prevent heart disease". CHOICE has been critical of health claims because some people might think eating enough of these foods means they no longer need to watch the whole of their diet, trying for balance and variety. We think it's doubtful health claims will contribute to improved public health. So their main advantage is only for the manufacturer — in the hope that a profitable number of people will be fooled into buying functional foods by often unproven claims of preventing this or that ailment.

At present, our food regulator, the Australia New Zealand Food Authority (ANZFA), is conducting a trial of health claims by allowing a particular health claim on a number of foods that contain added folate. In addition, many food labels already broadly hint at health claims and get away with it (for some examples, see *Functional foods*, page 16). We can imagine the free-for-all with the facts when they're actually allowed to make them.

Controlling the health claims

- There needs to be a very stringent approval process for any food that claims to deliver benefits beyond its basic nutritional value.
- The product should be tested for safety and effectiveness in much the same way as drugs are.
- Labels should state the amount of the active ingredient added to the food and the amount required to provide the claimed benefit. If the level isn't high enough, it won't have the claimed benefit.
- Health claims need to be monitored in the marketplace — without proper enforcement, any labelling regulations will have little impact.

YOGHURT AND YOGHURT-BASED DRINKS



Yakult is 'prescribed' in its 65 mL 'dose' for "everybody everyday". This sounds more like a drug than a food to us — the line's becoming very blurred. That's why we think it's important for all these new types of functional food to be assessed for safety and effectiveness, in much the same way as drugs are.

the equation. For example, a probiotic effect will vary depending on your age, race, diet, health and medical history, to name but a few.

In addition, you wouldn't get all potential benefits from just one type or strain of organism. As an example of the wide range of strains that are available, the genus *Lactobacillus* contains up to 60 species (including *L. acidophilus* and *L. casei* — the ones most commonly added to yoghurts and drinks). Within each of these species are separate strains, of which there can be hundreds. Although very closely related, each strain may have different effects on health.

And to have any effect in the gut, the bacteria need to survive food processing and storage in large numbers, then survive the journey

through the acids and digestive enzymes in the stomach and small intestine, and still survive once

they reach the large intestine (where most have their effect). A pretty tall order.

How much is enough?

The worst that can happen if you choose to eat or drink these products is that they do nothing extra for you — you'll just get the calcium and other nutrients you'd normally get from yogurt or a yogurt drink (though YAKULT isn't high in calcium and BIOS isn't much better).

But if you'd like to give them the benefit of the doubt that they'll be of extra use, a good starting point is to choose a product you can rely on to have consistently high enough levels of bacteria to have any effect — our test tells you which ones fit the bill.

To have the desired effect, scientists believe at least a million probiotic bacteria per gram of yogurt or drink are necessary — and that's not all the bacteria added together. For example, if a yogurt contains three different types of probiotic bacteria, it should contain at least a million of each of them per gram.

These are the levels planned for new regulations on yoghurts and fermented milks. □

Functional foods

A functional food is defined as any food claimed to have a positive impact on your health, physical performance or state of mind *in addition to its nutritive value*. Other descriptions used include 'designer foods', 'nutraceuticals' and 'pharmafoods'.

The first functional foods were merely foods fortified with extra vitamins or minerals to help treat a dietary deficiency. These have been around since the 1920s, when iodine was added to salt to prevent goitre; later came vitamin D in margarine to prevent rickets, and now we have bread or cereal enriched with folate to prevent some birth defects. If probiotic yoghurts and drinks do what they claim to do, they're also functional foods.

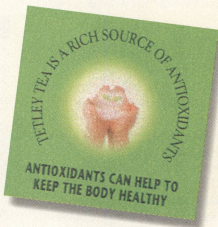
Without even knowing it, most of us are probably eating things every day with some claim to be functional foods:

- Isoflavone-enriched bread and cereals (claimed — but not proven — to protect against heart disease and breast cancer, or relieve the symptoms of menopause).
- Eggs and margarine modified to have high levels of omega-3 fats (said to do anything from protect against heart disease to reduce the effects of arthritis).
- Bread, cereal and pasta with added Hi-maize (supposed to boost your fibre intake).

You can also spread your toast with margarine that contains 'natural plant sterols' and is claimed to reduce the cholesterol you absorb from food. And then there are drinks with all those fancy herbs, and potions like ginseng or echinacea...

It's probably only a matter of time before we can buy chewing gum with added phosphatidyl serine (in the hope of slowing memory loss) or soup with St. John's wort (claimed to prevent depression) — both of which are available in the US.

The kind of claim you'll find on functional food, implying that it can have a positive effect on your health above and beyond its nutritional value.



Is there anything wrong with going functional?

Is there anything wrong with adding 'functional' ingredients to foods that ordinarily don't contain them? Maybe not in some cases — for example, if you want to eat more fibre, then fibre-fortified breakfast cereals or bread make good sense, as does eating food enriched with folate if you have any chance of becoming pregnant.

However, problems can arise when:

- An added substance hasn't been adequately tested to make sure it's safe.
- The claimed benefit is based on little or no evidence.
- Only a trivial amount of a beneficial ingredient is added.
- People are encouraged to replace healthy foods like fruit and vegetables with, for example, drinks or chips enriched with some 'health-promoting' ingredient. Fruit and veges are a rich cocktail of genuinely health-promoting compounds, whereas functional foods usually offer only one or two.

We found most of the 11 cots we tested to be potentially unsafe.

Considering that the safety standard's been compulsory since July 1998, this isn't good enough.



Cots: still not safe enough

IN PAST TESTS OF COTS, CHOICE HAS regularly found potentially unsafe models. In fact, in each of our four tests since 1985, the majority of cots tested had major safety faults. So we were pleased to report last August that our continual campaigning had finally paid off: the Australian/New Zealand Standard *Cots for household use* — safety requirements (AS/NZS 2172:1995) was made mandatory from June 30, 1998, for all cots — new and secondhand. This means no cot should now be on sale that doesn't comply with it.

We said at the time that this was good news for buyers, who should now be able to shop with confidence. However, our latest test reveals that making the standard mandatory hasn't yet meant that all cots on sale are safe.

In our lab's view, none of the 11 cots tested completely meets all the mandatory safety requirements, and only three substantially meet most. These are the IKEA Gök, MOTHERS CHOICE 5800-GN and REGENT Heirloom Dowel-End. Of the remaining cots, one failed four mandatory safety requirements; three failed three requirements, three failed two and one failed one.

Considering the spirit that led to making the standard mandatory — that all cots would be unambiguously safe — this is a very poor result. Many

manufacturers claim that the cots we tested were 'old stock' or have been discontinued (see 'Old models?', on page 21). We find this surprising, especially since we waited almost nine months after June 1998 before buying cots for this test, to give manufacturers a chance to conform to the standard's requirements. (In fact, the standard's been in place since 1995, well before it was made mandatory in 1998, so manufacturers had almost four years to adjust their production.)

For more on the issue of cots failing the standard, see *Tested and passed? How would you know?* on page 21.

Price no indicator of quality

The prices of the cots in this test ranged from \$159 to \$399. As many CHOICE tests find, you don't necessarily get better quality for a higher price. Nor is price an assurance of safety. For example, the cheapest cot in the test (the IKEA Gök, which costs \$159)

IN BRIEF

- Only three out of 11 cots tested substantially met all the safety requirements of the now mandatory Australian standard.
- Until you can be confident that all cots on sale comply with the standard, you're still best advised to check yourself whether the cot you're buying is safe (see *What to look for*, page 20).
- Only five of the 11 mattresses supplied by the retailers matched the cot manufacturer's size recommendations. Some of the others we were sold could severely compromise a child's safety in the cot.
- The ACCC says it will seek to have cots that pose serious safety hazards removed from the market.

WHAT TO BUY

IKEA Gök	\$159
MOTHERS CHOICE 5800-GN	\$239
REGENT Heirloom Dowel-End	\$380

The Mothercraft MC086 Pioneer's carved cornerposts are potential footholds for a child to climb — see right for details.



If you've bought a Cotech cot in the past with a pushbutton dropside mechanism as pictured below, take care when dressing your baby for bed that there's nothing that could catch on it. In fact, bibs and other clothes with ties and ribbons shouldn't be worn in any cot. Avoid lacy-weave or loosely crocheted clothes too, and anything else that could get caught on a protrusion and pose a strangulation hazard.



is a fairly basic design without a dropside, but it's one of only three that passed key safety and durability requirements, which is more than can be said for one of the most expensive models tested: the SUNBURY C15 Robin Hood, which failed four standard safety requirements.

On a positive note, all the cots passed the standard strength and durability tests, so they shouldn't fall apart when a child jumps up and down in them. All were deep enough, so a child can't easily climb out. And all but one passed the stability tests, so a child shouldn't be able to tip them over.

Caution: hazards!

Small children may poke their heads, legs, arms, hands and fingers into odd places, so the standard sets maximum and minimum spaces between parts of the cot so they can't get trapped. Only three cots passed these aspects of the tests (the IKEA Gök, MOTHERS CHOICE 5800-GN and GUMLEAF Redgum Slatted). One was considered marginal (the REGENT Heirloom Dowel-End), where the measurements were very close to the requirements, and the gaps unlikely to present an entrapment hazard.

Avoidable problems

While many of the failures identified don't pose a risk as dangerous as head entrapment or strangulation (see the photos, below and page 21), cots should

be free of *any* potential hazard. CHOICE thinks many of the other problems we found could easily have been avoided if all the manufacturers had considered *all* sections of the standard thoroughly, in the spirit it was intended, and designed and sold their products accordingly.

Take the carved corner posts of the MOTHERCRAFT MC086 Pioneer, for example. The carving may look attractive, but children could conceivably use it as a foothold for climbing, or hurt their heads on it. Simply limiting the carving to the upper area of the post could have eliminated both these risks.

Potential footholds could also have been avoided if there had been plugs provided with the STORKCRAFT Elisa to fill the holes required for fitting the mattress in the upper position.

You'd think it was easy enough to label cots appropriately, too, but only one cot in this test (the GUMLEAF Redgum Slatted) passed all the standard's requirements. For more about this, see *Mattress size* on page 22.

You still need to check

We hope that by the next time we test cots they'll all comply with the standard. But until this happens, you're still — disappointingly — best advised to check yourself whether the cot you're buying is safe (see *What to look for* on page 20).

Good cot — but a few millimetres from perfect

The GUMLEAF Redgum Slatted is a sturdy, solid timber construction and meets all but one of the standard's safety requirements. Its pushbutton dropside mechanism is easy to operate. Unfortunately, these metal pushbuttons are a few millimetres longer than the standard permits for protrusions (see the photo, below) and therefore pose a potential strangulation hazard, because babies able to stand up could get their clothes or a bib caught. While technically in breach of the standard, the hazard is considered minimal.

The manufacturer of the cot, Cotech, has made and sold cots with this dropside mechanism for years in good faith, believing the mechanism to be very safe. In fact, the cots had been assessed and passed by an independent testing laboratory. CHOICE, too, evaluated a similar Cotech model with the same dropside pushbuttons in 1996, and subsequently recommended the cot.

Regrettably our testing didn't identify this protrusion hazard at the time. Standards are subject to interpretation and we have taken a stricter view this time, erring even more towards the safety of children. You can minimise the risk by taking care when dressing your baby for bed — see the caption, left, for details. This is in other respects a safe cot.

When we informed the relevant parties of our findings, all reacted very promptly. The testing laboratory that had certified the cot agreed with our results, and Cotech immediately started to modify the pushbutton to less than 8 mm in length, which conforms with the standard. It told us it would put the new mechanism into production in early July.

This is a response we're pleased to report — and it differs considerably from many of the other responses we've had to our findings; see *'Old' models?* on page 21 for more on this.

However, even though the risk is small, we think Cotech should also have alerted its past customers to the potential danger the pushbutton could pose — and how to minimise that risk. It is working on a plastic mould to cover the pushbutton and remove the risk, but we're not aware of any public safety warning being issued — or for any of the other cots that failed safety requirements and are no longer being made but may well be in hundreds of homes.

PROFILES

Profiles are of the models in the *What to buy* list, in alphabetical order. Prices shown are a good target to aim for when shopping around, based on nationwide checks in late June 1999. Anything lower is a bargain.



IKEA Gök

Target price: \$159

Good points

- Adjustable mattress base.
- Good instructions.
- The cheapest cot in the test.

Bad points

- No drop-sides, making it difficult to lift a baby in and out with the mattress base in the lower position.
- No castors, making it difficult to move; and it's the heaviest (33 kg) of those tested.
- Requires partial disassembly to change the mattress base position.
- The gaps between some vertical bars are a little narrower than specified in the standard, but it's unlikely to present an entrapment hazard. Ikea says it will investigate this.
- The mattress base of the model we tested had splinters. Ikea says it has implemented a final inspection for all bed bases and will rework any splinters found.
- Informative marking on the mattress base isn't permanent, as required. Ikea says it will change the label to an indelible stamp.



MOTHERS CHOICE 5800-GN

Target price: \$239

Good points

- Drop-side and fixed side have teething strip.
- The drop-side is very easy to use — it's lowered by knee pressure.
- Good instructions.

Bad points

- The mattress base isn't adjustable.
- No castors, making it difficult to move.
- There's a small brand-name sticker on the outside frame of the cot where children can reach. Peel it off before you use the cot so your child can't eat it or choke on it.
- Informative marking on the mattress base is incomplete and not permanent, as required. IGC says it will investigate both these problems and make necessary changes.



REGENT Heirloom Dowel-End

Target price: \$380

Good points

- Adjustable mattress base.
- Drop-side easy to operate.
- Can be set up in five minutes.
- Good instructions.

Bad points

- Gaps between the guide rods of the drop-side mechanism and the top rail are a marginal entrapment hazard. Regent Nursery Furniture says it will correct the problem.
- Informative marking on the mattress base isn't permanent, as required. Regent says it'll look into alternatives.

For people with a disability

We assessed the cots for ease of use by people with a disability and checked in particular how easily the drop-side(s) could be lowered.

Of all the cots tested, the **MOTHERS CHOICE** is most suitable in this respect — fortunately it's also one of the three that are recommended. Its drop-side can be operated easily with one hand. However, it has no castors, so it's more difficult to move around.

Of the two other recommended cots, the **IKEA** has no drop-sides, so it could be more difficult for people with back problems to lower a baby into it, and with the **REGENT** you need both hands to operate the drop-side mechanism.

Who checks what's on sale?

The responsibility for monitoring compliance with the cot standard lies at federal level (for incorporated and interstate traders) with the Australian Competition & Consumer Commission (ACCC) and (for interstate traders) with the state and territory consumer affairs agencies. When we informed the ACCC of our test results, we were told: "ACCC and other [state] regulators conduct regular co-ordinated surveys of household cots in the retail market. Surveys include checking new cots and secondhand outlets. It has been in the secondhand market that most problems were identified. However, there's been marked improvement in recent months, with traders becoming more aware of safety issues."

These are welcome efforts to raise the awareness of both traders and consumers about cot safety. However, our test seems to indicate there's a way to go before such awareness eliminates unsafe cots from the shops.

Regarding the cots tested, the ACCC has indicated it will only direct cots to be removed from the market that have the potential to cause life-threatening injuries, such as strangulation, head entrapment and falls. For other potential hazards it will continue to work with cot suppliers to eliminate the risks.

WHAT TO LOOK FOR

Until we can report with confidence that cots labelled as complying with the standard do in fact comply with all safety requirements, it's a good idea to check yourself that the cot you're buying is safe. This is particularly important for secondhand cots, as those sold before mid 1998 weren't subject to any mandatory regulation.

So here's a short checklist. Others are available from all consumer affairs agencies and via the Treasury website: www.dist.gov.au/consumer/safety/consumer.html.

Safety

- Cots should be well-finished and made from quality materials. If they're made of **metal**, they shouldn't be bent or

rusty, and their joints should be close-fitting and securely and cleanly welded. **Timber** cots shouldn't contain dowels, nails and screws that are exposed above the surface. The timber shouldn't have large knots, insect damage, cracks or splinters.

- There should be **no sharp edges or points** that could cause a cut or head injury, **no knobs or protrusions** that could catch a child's clothing, **no decorative transfers** that can come off easily, **no crossbars or trim** that could be used as a foothold, **no bumpers** or anything else inside the cot that has strings or ties.

- The enclosed **depth** must be at least 600 mm from the base to the top of the side (500 mm from the top of the mattress), or 400 mm in the base's upper position if it's adjustable (300 mm from the top of the mattress). All the cots in this test substantially satisfied these 'essential dimensions' of the standard.

- The **gaps** between bars shouldn't be smaller than 50 mm or larger than 85 mm, to avoid trapping a child's limbs or head.

- The **dimensions of cots and mattresses** vary greatly (see *Mattress size* on page 22). Make sure the mattress you buy corresponds to the manufacturer's size recommendations. Gaps between the mattress and cot sides shouldn't be larger than 25 mm so babies can't fall into the gaps and suffocate.

Features

- All but one of the cots in this test have at least one **dropside**, which makes it easier to lift the baby into and out of the cot. The dropside mechanism shouldn't be too easily activated, and it should operate smoothly and quietly.
- An **adjustable mattress base** also makes it easier for the carer to lift a child into and out of the cot when it's in its higher position, though this is suitable only for babies who can't sit up. The mattress base of most of the cots in our test has two positions.
- If you'll need to move the cot, look for four **castors**, at least two of them with brakes. Two castors are OK, but you have to lift the cot and carry some of its weight when moving it. None of the recommended cots has four castors.
- **Teething rails** are plastic strips on top of the sides or ends.

Some of the dimensions to check when you're buying a cot — see right for more.



It'll take one person about half an hour to put together the 80 pieces of the Ikea Gök. However, it has good instructions and is one of the few cots designed to avoid incorrect assembly.



Assembling a cot

Most cots have to be assembled at home. In this test, the number of accessories — let alone structural pieces — per cot ranged from eight (for the partially pre-assembled **REGENT**) to 80 (for the **IKEA** and **STORKRAFT**). About half had 16 to 44 pieces that'll probably take one person about 20 minutes to assemble.

Follow the manufacturer's instructions precisely, because you could compromise your child's safety otherwise.

Only three of the 11 cots tested were designed to avoid incorrect assembly: the **ENDEAVOUR**, **IKEA** and **INFANT AUSTRALIA**. With all the others you could make mistakes such as putting the mattress base the wrong way up or mixing up the fixed side with the dropside, potentially creating footholds or entrapment hazards.

Tested and passed? How would you know?

Before the cot standard was made mandatory, we generally advised consumers to look for an indication on the cot or its documentation that it was tested to and passed the standard's safety requirements. However, during this test we found that five of the eight cots that *failed* our tests did have labels or certificates stating the cot was tested to and complied with the standard, and another said it was designed using the standard. On the other hand, of the three cots we can recommend, two don't mention the standard at all.

At this stage we can't pinpoint the problem. Do the manufacturers modify their cots after they've been tested and passed safety requirements? Do they put cots on the market before they've passed the tests? Or do the testing laboratories interpret the standard so differently that they achieve different results? The ACCC is currently liaising with state regulators, industry and test authorities to eliminate such potential problems.

CHOICE thinks:

- The standard needs clarification to rule out ambiguities in interpretation, so that you can rely on consistent certification in future.

- All cots should be tested and certified as meeting the standard by an independent lab (not the manufacturer's own, as is allowed now).

- It should be easier to find out about certification when you're buying a cot. You shouldn't have to search through all the documentation for an indication that the cot complies with the standard.

- One standard phrase should be used (for example, 'Tested by an independent NATA-accredited laboratory and complies with AS/NZS 2172:1995') and displayed on the packaging and on a tag attached to the cot. This way you'd know exactly what to look for and could find it easily.

'Old' models?

There seems to be another problem too. If a manufacturer has changed a cot model to make it comply with the standard, the old version that didn't comply shouldn't still be on sale. And it shouldn't have been on sale when we bought the cots for this test earlier this year. Yet most manufacturers of the cots that failed our tests told us these cots were no longer being made — that we must have tested an 'old' or 'superseded' model.

We were told that production of the **MOTHERCRAFT MC086 Pioneer** had stopped in May 1999 and of the **TARGET Macedon SC08** more than 12 months ago. Sunbury said the **SUNBURY C15 Robin Hood** we tested

had been discontinued more than 18 months ago and replaced by a modified model with the *same name and number*.

Endeavour Nursery Furniture said the **ENDEAVOUR Shona** had been discontinued and all residual stock was being withdrawn.

The **INFANT AUSTRALIA Sunset** was an older model manufactured before 1998, we were told, and all products made after June 1998 fully complied with the standard.

For similar comments about the **ARISA Joanne**, see the photo caption below. Cotech's comments on the **GUMLEAF Redgum Slatted** can be found in *Good cot* — but a few millimetres from perfect on page 18.

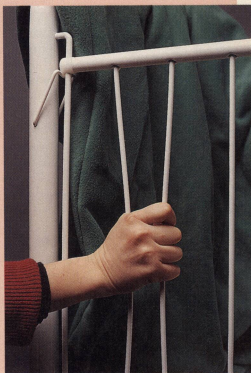
So, out of the eight that failed at least one of the tests, only one — the **STORKCRAFT Elisa** — is still being made as we tested it, and its manufacturer clearly believes it complies with the standard. So why were the rest still on the market? We found them in March this year, nearly nine months after the standard became mandatory. We were entitled to expect that they complied with the standard, and think the excuse that they're 'old models' just isn't good enough. But at least it's good to know manufacturers are aware of problems like those found in this test and say they're addressing them in new models.

However, these older models are almost certainly still around in people's homes and on the secondhand market. CHOICE thinks the manufacturers and regulators should be doing more to let people know about unsafe cots that could still be in use. We think some of these cots should be recalled or, depending on the problem, have public safety warnings issued.

Don't buy this Arisa Joanne cot. It's the model we tested, which failed both the head entrapment and protrusion hazard tests. If you have this cot at home, take care not to bend the thin vertical sidebars, as you could create gaps that could trap your child's head. And be mindful of the protruding dropside latch, where children could hurt their heads or get their clothing caught (the latter is also a problem on the Endeavour and Sunbury cots).

According to the manufacturer, the **Arisa Joanne** we tested is no longer on the market. **Arisa** says the current model has different tubing, a different access fastening device, different sides and different dropside sliding rods — and that it complies with the standard. But unfortunately, it has the *same name* as the superseded model, which doesn't help consumers distinguish between the two. (This also applies to the **Sunbury C15 Robin Hood** — see above.)

When we informed **Arisa** of our findings, we were told the company had talked to all its retailers about a recall and had found only one cot, which would be returned. We hope there are no other 'superseded' **Arisa Joanne** cots on sale and think those sold in the past should be recalled. Make sure you don't buy this version of the **Joanne**, either new or secondhand, and take care when using it if you already own one.



The human cost

According to the Monash University Accident Research Centre (MUARC), between 1985 and 1995 there were 15 deaths in Victoria related to nursery furniture. Eleven were associated with cots and their environments. Of these, seven children strangled or suffocated as a result of the cot design or a modification, including one whose clothing was caught on a wing nut.

MUARC reports that the relatively high mortality associated with cots is consistent with overseas reports, and further emphasises the need to ensure mandatory, adequate and safe cot design.

MUARC estimates that there are at least 6540 injuries associated with nursery furniture annually among under-fives.

Brand / model (in alphabetical order)	Manufacturer / distributor	Origin	Target price (\$)*	Warranty (years)	Exterior dimensions (H x L x W, mm) **	Recommended mattress dimensions (H x L x W, mm) ***	Dropside
RECOMMENDED							
IKEA Gök	Ikea	Ukraine	159	ns	795 x 1360 x 885	80 x 1310 x 700	0
MOTHERS CHOICE 5800-GN	IGC	Malaysia	239	1	790 x 1355 x 995	150 x 1295 x 685	1
REGENT Heirloom Dowel-End	Regent Nursery Furniture	Australia	380	ns	740 x 1365 x 1090	100/150 x 1290 x 655	1
NOT RECOMMENDED							
ARISA Joanne (A)	Arisa	Australia	259	2	725 x 1370 x 1155	121 x 1320 x 660	1
ENDEAVOUR Shona (A)	Endeavour Nursery Furniture	Australia	210	ns	650 x 1195 x 1025	≤75 x 1130 x 590	1
GUMLEAF Redgum Slatted (B)	Cotech	Australia	369	4	735 x 1335 x 1060	150 x 1300 x 680	1
INFANT AUSTRALIA Sunset (C)	Endeavour Nursery Furniture	Australia	228	ns	650 x 1355 x 1095	100–125 x 1295/1300 x 690	1
MOTHERCRAFT MC086 Pioneer (D)	Mothercraft	Malaysia	299	ns	770 x 1380 x 1165	100 x 1300 x 690	2
STORKCRAFT Elisa	Storkcraft / Babyco	Canada	300	ns	765 x 1350 x 1150	100/150 x 1305/1290 x 690/685	2
SUNBURY C15 Robin Hood (E)	Sunbury	Australia	399 (E)	5	750 x 1370 x 1050	75/150 x 1300 x 690 (G)	2
TARGET Macedon SC08 (F)	Target	Australia	289	ns	750 x 1365 x 1050	75–150 x 1300 x 690 (G)	2

More problems

In addition to the problems identified in the tests, three of the 11 cots had quality faults.

- The **INFANT AUSTRALIA** had some screws missing from the original package.
- The **ENDEAVOUR** had two long cracks along both ends.
- The **MOTHERCRAFT** had screws that didn't fit and couldn't be tightened enough to secure the base to the ends.

We had to replace both the **ENDEAVOUR** and the **MOTHERCRAFT**, only to find the screws of the replacement **MOTHERCRAFT** were rusty.

Mattress size

The size of a cot mattress is also a critical safety issue. If it's too short or narrow, a baby could slide down into the gaps between mattress and base and suffocate, or get its limbs or fingers caught. If it's too thick, its height could make it easier for a child to climb or fall out.

All cots must include information about the recommended mattress size: on the packaging, on a leaflet in the cot package, on a swing tag or label attached to the cot, and permanently and indelibly marked on the top surface of the mattress base.

However, cots are usually sold without a mattress and mattress dimensions aren't standardised. The 11 cots we bought for this test ranged from 1195–1380 mm long, 650–795 mm high and 885–1155 mm wide. There were only two cots with the same recommended mattress size.

It's very important for both retail staff and consumers that the recommended mattress size is prominently displayed. But we found inadequately labelled cots and ill-fitting mattresses in shops. Only five of the mattresses supplied by the retailers matched the cot manufacturer's recommendations within 10 mm.

During a survey of 24 cots in Brisbane last year, officers of the ACCC found that retail displays used inappropriately fitted mattresses in cots, and that retailers didn't stock mattresses of the

recommended sizes. The ACCC says it recognises this problem and it's "being considered" at the moment.

Considering that it's a safety issue, **CHOICE** thinks:

- Cots should be sold with an appropriately fitting mattress, or perhaps with a choice of two mattresses — inner-spring or foam. Standardising both cot and mattress dimensions would be an even better solution that would eliminate this problem.



We asked for a mattress to fit this cot — this is what we were sold.

	1	2	3	4	5	6	7	8	9	
Castors / brakes	Construction	Footholds	Risks from protrusions	Strength and stability	Essential dimensions	Entrapment risks	Dropside / latches	Labelling	Brand / model (in alphabetical order)	
0	Pass	Pass	Pass	Pass	Marginal (H)	Pass	na (J)	Marginal (K)	IKEA Gök	
0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Fail (L)	MOTHERS CHOICE 5800-GN	
0	Pass	Pass	Pass	Pass	Pass	Marginal (H)	Pass	Marginal (K)	REGENT Heirloom Dowel-End	
4	Pass	Pass	Fail	Pass	Pass	Fail	Pass	Marginal	ARISA Joanne (A)	
4	Pass	Pass	Fail	Fail	Pass	Fail	Pass	Marginal	ENDEAVOUR Shona (A)	
4	Pass	Pass	Fail	Pass	Pass	Pass	Pass	Pass	GUMLEAF Redgum Slatted (B)	
4	Pass	Marginal	Pass	Pass	Pass	Fail	Pass	Fail	INFANT AUSTRALIA Sunset (C)	
2	Pass	Fail	Fail	Pass	Pass	Fail	Pass	Marginal	MOTHERCRAFT MC086 Pioneer (D)	
4	Marginal	Fail	Pass	Pass	Pass	Fail	Pass	Marginal	STORKCRAFT Elisa	
2	Pass	Fail	Fail	Pass	Pass (G)	Fail	Pass	Fail	SUNBURY C15 Robin Hood (E)	
4	Pass	Fail	Pass	Pass	Pass (G)	Fail	Pass	Fail	TARGET Macedon SC08 (F)	

* Prices shown are a good target to aim for when shopping around, based on nationwide checks in late June 1999.

** Dimensions are rounded up to the next 5 mm.

*** / indicates 'or'.

ns Not stated.

(A) According to the manufacturer, the model we tested has been discontinued and residual stock withdrawn from retailers. For more on this issue, see 'Old models?' on page 21. The Arisa cot has been replaced by another model with the same name.

(B) The manufacturer tells us it has acted on our results straightaway and corrected the protrusion hazard in models produced from early July this year — see page 18 for more on this.

(C) According to the manufacturer, the model we tested was manufactured before 1998 and all cots made since June 1998 have 'full standard compliance'.

(D) According to the manufacturer, the model we tested was discontinued in May 1999.

(E) According to the manufacturer, the model we tested hasn't been manufactured for more than 18 months. For more on this, see 'Old models?' on page 21. As far as we can tell, the price shown is for the new model of the same name.

(F) According to the manufacturer, the model we tested hasn't been manufactured for more than 12 months. For more on this, see 'Old models?' on page 21.

(G) To maintain the required depth of the cot, don't use a mattress thicker than 117 mm in the Sunbury cot and 125 mm in the Target cot.

(H) The gaps or spaces we measured were very close to the standard's requirements. They're unlikely to present a potential entrapment risk.

(J) Not applicable — this cot has no dropside.

(K) Includes informative marking on the mattress base, but it isn't permanent, as required (see the profile on page 19).

(L) Informative marketing on the mattress base isn't permanent and is incomplete. There's also a brand-name sticker on the cot frame which a child could reach, peel off, eat and/or choke on. Peel it off before you use the cot (see profile on page 19).

1 Castors/brakes

If you'll need to move the cot, look for four castors; at least two of them should have brakes. Two castors and no brakes are OK, but you have to lift the cot and bring some of its weight when you move it.

Tests

2 Construction

We assessed the quality of materials and construction, and whether parts were permanently fixed or required a tool to disassemble, making them tamperproof by children.

3 Footholds

The standard prohibits any components on the cot's sides or ends that could be used as footholds or footholds for climbing.

4 Risks from protrusions

To prevent possible strangulation risk, no

protrusion should be more than 8 mm, unless specially designed not to snag clothing.

5 Strength and stability

All the cots passed the strength test, which requires a large force (equivalent to around 10 kg) to be applied to each bar or panel.

For the stability test a 10 kg weight is attached to one side of the cot and a force is then applied to see if any of the legs lifts off the ground. This is to test whether a child can tip the cot over from inside, and whether it tips over if a child climbs up one side from outside. Only the ENDEAVOUR Shona failed.

6 Essential dimensions

We checked that the distance between the top of the mattress base (in its lower position) and the top edge of the cot is at least 600 mm when the dropside is raised. In the base's higher position it should be 400 mm, or 250 mm when the dropside is lowered.

7 Entrapment risks

We tested all spaces accessible from within the cots, using standard probes to simulate limbs, heads and fingers. Seven of the cots failed at least one of these tests.

8 Dropside/latches

In this test, dropside must withstand being raised and dropped 200 times. We also tested the durability of the dropside mechanisms through 200 cycles, and inspected the cots for damage after applying a 50 kg load to the dropside for 15 minutes.

9 Labelling

We checked whether the cots were labelled and marked according to the standard. Those that were 'marginal' provided all the information, but some of it wasn't permanently marked on the mattress base, as required.

Y2K & you

Worried about the world coming to an end on January 1 — or at the very least finding yourself without money, water, electricity or phones for a few days or appliances not working properly? Read on for what is and isn't likely to happen, and how to prepare for it.



IN BRIEF

■ Though the Millennium Bug may cause some minor disruptions in January 2000 and the following months, it seems there's no cataclysmic scenario to panic about.

■ Use this article to help you prepare for any issues that may arise in your home, your neighbourhood or the wider community, or if you're travelling over the New Year period.

IT'S BEEN CALLED THE MILLENNIUM Bug, Y2K Bug, Year 2000 Problem and probably a number of other names over the past few years. Whatever the title, the problem is essentially the same.

Many computers, software and electronic appliances only record the last two digits of a year as part of a date — for example, 98 for 1998. So they can only recognise a set of 100 years, and in most cases that's from 1900 to 1999. Consequently, if you type in 00 for 2000, they'll read it as 1900.

This can cause trouble if a computer program or appliance relies on the date to work properly — even more so if a date-setting function is involved (for example, with your VCR):

■ While 1900 started on a Monday, 2000 starts on a Saturday, so the weekday and date would be mismatched if your appliance read 00 as 1900.

■ While 2000 will be a leap year, 1900 wasn't, so the appliance wouldn't recognise February 29, 2000.

How does Y2K affect home appliances?

A number of household appliances record the date and so could be affected.

■ VCRs, microwaves, fax machines, TVs

It's unlikely that recently made products will have a problem. As long ago as its Jan/Feb 1998 issue, CHOICE tested 14 VCRs and, earlier still (October 1997), seven plain-paper fax machines and found that they could all cope with 2000. If you still want to check, follow the *How do I check it?* instructions on page 27.

■ Digital cameras, digital organisers

Anything that displays or prints a date should be checked to see if it will handle 2000 (see *How do I check it?*). The manufacturer's website should also have information, or phone the company if you don't have Internet access.

■ Computers

Both hardware and software could suffer — for example, the date function on some computers may not turn over to the next century, and software that sees the date as 1900 could cause problems with date-sensitive calculations. It's worth checking if you have programs such as databases, spreadsheets and genealogy programs, and also check your operating system. See *How do I check it?* for the best way to go about it.

If you have dates in the data your software is manipulating that aren't clearly in this century or the next, you could find yourself with some very odd calculations: for example, a spreadsheet to calculate loan repayments due in 2001 — if you enter the date as 12/3/01, the computer may report the payment is 98 years overdue.

■ Timer systems: burglar alarms, watering systems

These often rely on a date to function and may fail. Try the *How do I check it?* instructions for watering systems and similar non-critical products. However, systems like burglar alarms can be quite complicated. With any product where your health or security could be in jeopardy, we recommend you contact the manufacturer to check its Y2K compliance. Get assurances in writing.

■ Cars

Most modern cars contain at least one computer chip. However, it's unlikely there'll be any serious problems because the chip doesn't usually rely on a date to do its job. Some cars may have an automated service reminder that relies on dates, or a clock that displays the date on the dashboard. If this is the case, check their Y2K compliance with the manufacturer.

Rights and insurance

■ Your rights

Under the Trade Practices Act all products are required to be fit for the purpose for which they're intended and of merchantable quality. If the product you're about to buy has a date function, ask for a written statement from the retailer that it won't have a problem. If the retailer doesn't know or won't give you this, either don't buy it from them or contact the manufacturer with the same question.

If you've asked the question, have written proof of the reply and the product fails because of a Year 2000 problem, you can claim a replacement, refund or repair under the Trade Practices Act. If you don't have written proof it will be very difficult to make a claim.

■ Insurance

Some insurance companies are already making it clear they won't cover Year 2000-related failures — breakdown of household appliances isn't normally covered by home contents policies. So if your home appliance fails because it has a problem (direct or indirect) with 2000, don't expect your home contents insurance to cover it.

However, insurance may cover events that are the product of Y2K failures. So in the unlikely event that your power fails, you may be able to claim for the ruined food in your freezer. The only way to be certain of your cover is to read your policy carefully and get assurances from your insurance company in writing.

If you'll be travelling around this time, find out what your travel insurance will and won't cover with regard to Y2K failures.

Utilities

While it appears unlikely that there'll be a major failure of any of our utilities, it's possible that some areas could suffer longer than normal delays in fixing minor faults.

Even if a company has no problems delivering its service, it can still run into difficulties with billing and record-keeping. Keep all bills and statements from the latter part of 1999 as a reference.

■ Water

Most major water suppliers said they were close to Y2K-compliant by the middle of 1999. Some of the

smaller suppliers are not as easy to check, so if you live in a country area you might like to contact your water supplier directly (probably your local council) and ask it what it's doing to ensure supply.

■ Electricity

Generally the electricity supply industry doesn't rely heavily on systems that are likely to be affected by Y2K issues. Most suppliers are confident their systems will be ready by late 1999, but they won't give an absolute guarantee of supply because they say there are too many factors like storms, mechanical failures and excessive demand that could cause a disruption.

■ Gas

It's unlikely that gas supplies will be affected by the problem. Only a few suppliers' delivery systems rely on computer technology that's date-dependent, and work is well under way to replace or repair these systems. However, the suppliers are being cautious about guaranteeing continuity of supply because they rely heavily on power and telecommunications. A significant disruption in either of those industries could affect their ability to supply gas.

■ Phones

The Australian Communications Authority is confident that the major telecommunications companies will have their systems ready for 2000. This means your phone should continue to work and all the systems that rely on that infrastructure won't be affected. However, there's not the same amount of confidence in their billing systems, some of which are outsourced. It's always a good idea to check your bills, but do so more carefully both before and after the new year.

■ Public transport

Reports from government departments suggest that public transport will not be significantly affected, unless there's a major power failure or telecommu-



nications are disrupted. Although neither of these scenarios is considered likely, all government departments are required to have contingency plans in place by the end of 1999. If you'd like to know your local transport contingency plan, contact your bus, train, tram or ferry service.

Services

■ Banks

The biggest problem for our banking system is unlikely to be a computer failure. A more worrying

scenario is large numbers of people withdrawing their savings from the banking system. The Reserve Bank is preparing for a much larger than normal demand for cash around this time — on top of the traditional holiday drain on our cash reserves, which is at its highest. There's no need to worry that bank balances will be entirely wiped — the banks maintain extensive records and back-ups of their data.

— ATMs

It's unlikely that ATMs will fail due to the Y2K problem. The banks have tested the relevant computer systems and the Australian Payments Clearance Association (APCA) has overseen successful testing by the banking industry of the linkages between ATM networks. However, the fact that it's a holiday, coupled with some people perhaps withdrawing more than normal, could mean that the systems become overloaded and ATMs respond more slowly, or your local ATM might run out of cash. You should still be able to use credit cards in most shops, though.

— Credit cards

Banks have tested their credit card systems and terminals, and the APCA has managed tests of the linkages between banks, and between merchants and banks. Card associations such as Visa and MasterCard have also shown that their systems can operate

with dates in 2000. If telephone connections are interrupted, most shops will be able to temporarily switch back to paper-based card processing.

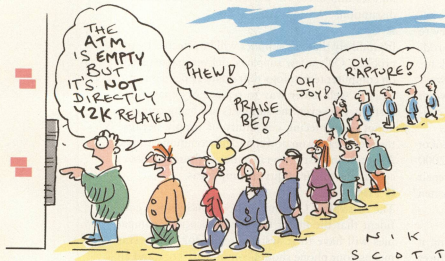
■ Hospitals

Government health departments are confident their systems will be ready. However, if you already know you'll need to spend time in hospital over the new-year period, you can check that the hospital has a contingency plan. Events such as power blackouts or water shortages should be included in the plan, and the hospital should also be able to assure you there'll be no significant equipment failures caused by the change of date from 1999 to 2000. If it can't do this, you might want to change the dates you're hospitalised.

Most of the equipment in an ambulance is unaffected by the Y2K problem. All the services we contacted were well advanced with their plans to ensure their communications systems were compliant, and they were working on contingency plans.

■ Government departments

All states and territories in Australia have an office to deal with Y2K issues (see page 28 for contact details). Most government departments seem well on their way to being compliant. However, we think it's good sense to check all correspondence for errors.



To be on the safe side...

While most of the assurances are positive, it would be a miracle if every organisation had thought of everything, so you might want to make some preparations for a few minor disruptions to normal services.

There's another good reason to make sure you have some cash, fuel and food staples on hand on January 1, 2000 — for most of us it's a holiday. However, it may also be worth having an alternative source of light, heat (if you normally need it for any reason at this time of year) and means of cooking, just in case there's a longer than normal delay in repairing any services that may have a problem.

The following is a basic list of things that are handy to have in any emergency:

- A supply of fresh water. Tap water is just as good as bottled and should be kept in plastic containers such as soft-drink bottles — about three days' worth per person and about 4.5 litres per person per day.
- A few days' supply of tinned or other non-perishable food.
- A well-stocked first aid kit and some non-prescription drugs like pain relievers, laxatives, antacids and anti-diarrhoea medication. Add to this any prescription medication you might need.
- A camp stove and a supply of bottled gas (a barbecue is a good alternative).
- Matches.
- A powerful torch and a supply of fresh batteries.
- Candles.
- A full tank of petrol for your car or bike. Don't store extra petrol around your home — it's inviting an accident.

A more detailed list is available from the Red Cross website at: www.redcross.org/disaster/safety/y2k.html.

If you want to know the status of a Commonwealth Government department, you can go to its website or contact its OGIT Year 2000 Project Office (see page 28).

It's not a bad idea to allow extra time when applying for licences or permits close to the new-year period, since offices may be slowed down as staff are trained on new computer systems, or deal with an influx of Y2K queries.

Travelling in 2000

■ International

If you're thinking of travelling outside Australia on or just after January 1, 2000, check with the Commonwealth Department of Foreign Affairs and Trade (DFAT) Consular Travel Advice (see page 28) to ensure where you're going is considered safe. Some countries in Asia, the Middle East and the Indian subcontinent won't be ready in time and it's advisable to avoid them if you can.

— Air

Aircraft are unlikely to be affected. However, check with your airline to ensure it's Y2K-compliant and is taking reasonable precautions — especially with regard to safety, choosing flight paths, bookings and baggage handling. Get these assurances in writing wherever possible. Keep a copy with you and leave another at home.

— Sea

If you're considering travelling or sending goods by sea, check with Consular Travel Advice to ensure that the ports you'll be using are Y2K-compliant. Also get written assurances from the shipping firm or cruise line that the ship is compliant and that it has taken into account problems that may affect you.

■ National

— Air

You can be reasonably confident that aircraft and major airport air traffic control systems within Australia are unlikely to have a problem. There may be some problems with small operators, most likely to do with ground operations. The Civil Aviation Safety

Checklist

It's a good idea to set up a checklist so you know which items you'll need to fix or replace. Here are some ideas.

Checklist	Date checked	Pass/fail	Fix or replace
Computer hardware			
Computer software			
Data files on computer			
Fax machine			
VCR			
Digital clocks/watches (with a date)			
Clock radios (with a date)			
Watering system			
Burglar alarm			
Automated lighting system			
Automated ducted heating system			
Car			
Printer			
Scanner			
Camcorder			
Digital camera			
Normal camera with a date-back			
Air conditioner			
Central heating			
Telephone			
Answering machine			
Bio-cycle sewerage system			

How do I check it?

If a product uses a date to function, do the following to see if it's Y2K-compliant (computers are a special case — see below):

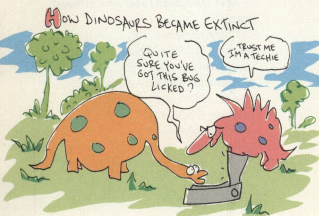
1. Set the date to 31/12/99.
2. Set the time to one minute to midnight.
3. Wait and watch for one minute to see if the date rolls over to 00.
4. If it does, set the date to 28/2/00.
5. Set the time to one minute to midnight.
6. Wait and watch for one minute to see if the date rolls over to 29/2/00. This tells you whether it will correctly recognise 2000 as a leap year. If the date changes to 1/3/00, it probably thinks the year is 1900, which wasn't a leap year.
7. Reset to the current date and time.

If it does all this without a hitch you can be reasonably confident it won't have a problem. If it doesn't, make a note of the model number and contact the manufacturer to see if the date function will affect the normal operation of the product.

If the manufacturer can't help and you're really stuck, there's still a solution. Go back to the future and set the date to 1972 — like 2000, it started on a Saturday and was a leap year.

■ For **computers**, make sure you have important information backed up before performing the test, and don't run any software until you've reset the date to today.

If you have any programs that usually open as soon as you start your computer, disable them before you perform the test.



Authority says it will ground any operator that isn't Y2K-compliant.

— Sea

If you're travelling or sending goods interstate, get written assurance from the shipping agent that it's Y2K-compliant. If you're travelling on your own boat, ensure your navigation equipment is compliant.

— Rail

Most of the government-owned rail services in Australia said they were well on the way to full compliance at the time of writing, but so far they haven't announced exactly where they're at. If you

have particular concerns, check with the relevant rail service closer to the New Year.

— Road

Traffic lights are unlikely to fail unless there's a major power or communications failure in their area. If you're travelling in January 2000, take extra care, especially if you do find a set of traffic lights that's failed. It could mean there's a problem in the area and other lights may also be out. Take extra care anyway — holiday periods are the most dangerous times on the road.

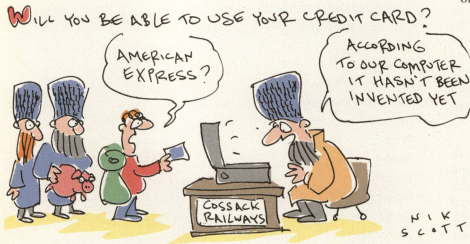
Most of the agencies that deal with registration of vehicles and driver licensing have been developing their Y2K compliance for some time, especially those that issue licences over five-year periods. If you need more information, contact the agency concerned in your state.

— Bookings

Australian travel agents have been taking bookings for 2000 since January 1999. There's no reason to expect their systems will have a problem.

— Hotels

If you're going to be staying in a hotel that uses electronic door keys on the night of January 1, 2000, check that you can get in and out of your room should the electronic key cease to function. □



Useful contacts

Commonwealth Government

■ OGIT Year 2000 Project office

Catherine Carter, Marketing Manager,
Year 2000 Project Office,
PO Box 258, Dickson 2602.
Telephone: (02) 6271 4966.
www.ogo.gov.au/year2000.

■ Foreign Affairs and Trade, Australia —

Consular Travel Advice

Consular Duty Officer: (02) 6261 3305; toll-free (local call cost — within Australia only) 1300 555 135.
www.dfat.gov.au/consular/advice/consadvice_main.html.

State governments

■ ACT

Australian Capital Territory Government —
Year 2000
Telephone: 132 281.
www.act.gov.au/y2k.cfm.

■ Northern Territory

Year2000
Telephone: 1800 11 2000.
www.nt.gov.au/year2000.

■ NSW

NSW Government Y2K
Telephone: 131 145.
www.y2k.gov.au.

■ Queensland

Queensland Government and Y2K — News
Telephone: (07) 3227 0905.
y2k.qld.gov.au/news/news1.html.

■ South Australia

Y2K South Australia
Telephone: 1800 11 2000.
www.y2k.sa.gov.au.

■ Tasmania

Home Page — Year 2000
Telephone: (03) 6233 8011.
www.justice.tas.gov.au/y2000.

■ Victoria

Vic Government
Telephone: 1800 11 2000.
www.y2k.dsd.vic.gov.au.

■ Western Australia

Year 2000 Western Australia
Telephone: 1800 11 2000.
www.y2k.wa.gov.au/home/home.html.

Non-government organisations and others

■ Standards Australia

Standards Australia, PO Box 1055,
Strathfield 2135.
Telephone: (02) 9746 4732.
www.y2kregister.com.au/core.html.

■ AFTA (Australian Federation of Travel Agents)

309 Pitt Street, Sydney 2000.
Telephone: (02) 9264 3299.
www.afta.com.au.

■ Australian Bankers Association

Level 42, 55 Collins St, Melbourne 3000.
Telephone: (03) 9654 5422.
www.bankers.asn.au.

■ Red Cross

www.redcross.org/disaster/safety/y2k.html.

Where has your dishcloth been today?

If you believe the ads, it's been sitting around the kitchen hosting parties for multitudes of dangerous bacteria whose sole purpose in life is to make you and your family sick. Can antibacterial cloths and sponges save you?



SURVEYS HAVE FOUND THAT KITCHEN dishcloths often have high levels of bacteria in them. Bacteria need food and water to survive, and if you don't rinse food residues from your cloth and let it dry, conditions are ideal for breeding. While the vast majority are harmless, there may be some that could make you sick, like salmonella, *Escherichia coli*, *Bacillus cereus* and *Staphylococcus aureus*, and your cloth could spread these bacteria around your kitchen, resulting in cross-contamination (the transfer of germs from one surface to another).

Antibacterial claims

Antibacterial cloths and sponges are impregnated with an antibacterial agent (such as triclosan) that should kill bacteria in the cloth, or at least slow down the rate at which they multiply, so you don't spread them around the kitchen and possibly contaminate your food. To have any impact on preventing cross-contamination, the antibacterial agent should be able to kill a significant number of the cloth's bacteria within 24 hours — preferably within eight hours (overnight).

We found eight cloths and sponges on the market that claim either to kill bacteria (and other micro-

organisms such as mould) or inhibit their growth. Seven of them also claim to reduce odour (which is generally caused by bacteria and moulds).

We put those cloths and sponges to the test. Do they do what they say they do? Can you sleep easy, confident your cloth is killing off those pesky bacteria partying within?

What they can do

■ Most can kill enough bacteria to ensure you start the day with a relatively hygienic cloth.

Of the eight sponges and cloths we tested, six killed bacteria even when they weren't rinsed and dried — see the table on page 31 for the better performers. Of the remaining cloths, the DOMEX Antibacterial cloth inhibited bacteria but didn't kill them, and the CHUX Robuste apparently provided good growth conditions for *E coli* — it ended up with more than it started with!

We also found that most of the antibacterial agent remained in the cloth after extensive washing, so it still killed bacteria, although not quite to the same extent as initially.

How do these findings compare with ordinary cloths and sponges? When treated the same way as the antibacterial cloths — that is, not rinsed or dried

IN BRIEF

■ Using an antibacterial sponge or cloth in the kitchen may mean you start the day with a germ-free cloth.

However, if you rinse out an ordinary dishcloth after use and allow it to dry, the effect is much the same.

■ Your dishcloth is only a small part of the total kitchen hygiene picture, and if you neglect other areas, using an antibacterial cloth is as good as useless.

■ Overuse of antibacterial products could lead to complacency about hygiene, and could also contribute to the growing problem of resistant bacteria.

ANTIBACTERIAL CLOTHS

out after use — the regular cloth and sponge didn't kill significant numbers of bacteria.

However, when an ordinary cloth was allowed to air dry, virtually all of the *E. coli* died, but relatively few *S. aureus*. Overall, this result was equal to or better than that for the antibacterial cloths that weren't dried.

■ They may remain odour-free for longer than ordinary cloths.

We subjected the cloths and sponges to a worst-case hygiene scenario — simulating wiping up milk and raw chicken juice spills, then leaving the cloths in a wet heap — and found that while most of them became smelly after a few days, the antibacterial cloths fared better than ordinary cloths in the same situation.

Again, with a little common sense — rinsing the sponge or cloth and allowing it to dry — you'll probably find an ordinary cloth or sponge won't become too smelly too soon.

The cloths and sponges tested: while most lived up to their claims, using an ordinary cloth and allowing it to dry out is often just as effective.



Claims and regulations

What's the practical difference between killing bacteria and slowing down the rate at which they multiply? Ideally the bacteria should be killed: if the germs are still alive and kicking — even if they're not multiplying — they still pose a potential health risk.

We found that many of the cloths that claimed only to inhibit bacteria in fact killed them. The difference could lie in the type or amount of antibacterial agent used, or how it's bound in the cloth. Or perhaps the manufacturers just didn't want to commit themselves to such an absolute claim.

This type of cloth isn't currently regulated in Australia, and is exempt from the Therapeutic Goods Administration (TGA) standard for disinfectants. This means there are no rules about how effective they should be, and what claims can and can't be made. While we don't necessarily think these products should be included in the disinfectant standard, we do think the ACCC should keep an eye on the kinds of claims manufacturers are making. For example, one that we didn't test claimed it was "germ-repellent" — now, it may kill or inhibit germs in the cloth, but it's highly unlikely to scare them away!



Antibacterial cloths can't prevent cross-contamination from raw meat to fresh vegies if you work like this.

What they can't do

■ They can't disinfect surfaces.

Wiping up spills may trap harmful bacteria in the sponge, but won't disinfect the bench.

■ They can't prevent cross-contamination during food preparation.

It takes a long time for antibacterial agents in the sponges and cloths to work — certainly more than a few minutes and perhaps up to 24 hours. This means they won't necessarily prevent cross-contamination within the same day of use. So if you wipe up raw chicken juice, say, and then use the cloth to wipe your knife for chopping salad, you could still transfer bacteria from the chicken to your salad.

OUR VERDICT

CHOICE is concerned that some people might start relying on an antibacterial cloth to prevent cross-contamination during food preparation, rather than using sensible hygiene practices. As our test shows, most of the cloths are less than perfect and perform no better than an untreated cloth that is left out to dry. Even the best ones won't prevent cross-contamination while you're cooking and cleaning up.

There are also fears that the overuse of antibacterial products could add to the growing problem of resistant bacteria. Bacteria subjected to small amounts of antibacterials (that is, amounts not great enough to kill them) can develop resistance to them. Antibacterials can also alter the mix of bacteria — by killing susceptible bacteria they allow resistant strains to proliferate.

It's up to you to decide whether you want the 'added protection' of an antibacterial cloth or sponge, but remember: it's only one small part of food hygiene. If you're sloppy in other areas, an antibacterial cloth can be as good as useless.

The bottom line is that there's no substitute for sensible hygiene practices. A few tips are:

- After using any cloth, rinse it out and allow it to dry.
- Use paper towels for mucky jobs.
- Use a separate cloth or a mop for the floor.
- You could use a nylon-bristled brush to wash dishes (rinse it out and allow it to dry afterwards).

See *Further information*, far right, for more sources of information on food hygiene.

Antibacterial cloths and sponges

Brand / name (in order of antibacterial rating)	Manufacturer / distributor	Price per cloth / sponge (\$)	Product type	Nature of claims	1	2	3
					Odour rating	Antibacterial rating	Antibacterial rating (after washing)
SCOTCH-BRITE Multi-purpose no-scratch scrub sponge	3M	1.89	Sponge + scourer	Kills germs, resists odours	✓✓✓✓	✓✓✓✓	✓✓✓
SCOTCH-BRITE Multi-purpose thick handy sponges	3M	0.71	Sponge	Kills germs, resists odours	✓✓	✓✓✓✓	✓✓✓
STAY FRESH Antibacterial Tuf Hyper wipes	Troden Imports	0.33	Cloth	Inhibits bacterial growth, resists odours	✓	✓✓✓	✓
CHUX Power triple action wipe	Nationalpak	1.69	Cloth	Inhibits bacterial growth, resists odours	✓	✓	✓
SCOTCH-BRITE Multi-purpose extra thick and absorbent anti-bacterial wipes	3M	0.56	Cloth	Kills germs, resists odours	✓	✓	✓
HOME BRAND Antibacterial absorbent wipes	Woolworths	0.87	Cloth	Inhibits bacterial growth	✗	✓	✓
CHUX Robuste antibacterial cloth	Nationalpak	0.95	Cloth	Inhibits bacterial growth, resists odours	✓	✗	✗
DOMEX Antibacterial cloth	Lever Rexona	0.98	Cloth	Inhibits bacterial growth, resists odours	✓	✗	Not tested

1 Odour rating

The cloths and sponges were saturated with a mix of bacteria (including those primarily responsible for smelliness) and diluted milk or chicken juice. After three days a panel of sniffers rated the odour of each sample, and again after five days.

Ratings:

✓✓✓✓ = No more than a slight smell after five days for both milk and chicken-treated cloths.

✓✓✓ = No more than a moderate smell after five days for both milk and chicken-treated cloths.

✓✓ = No more than a moderate smell after three days for both milk and chicken-treated cloths.

✓ = No more than a moderate smell after three days for either (but not both) of the milk or chicken-treated cloths.

✗ = More than a moderate smell after three days for both milk and chicken-treated cloths.

Untreated cloths: An ordinary cloth and sponge received a rating of 7 and 3 respectively.

2 Antibacterial rating

This test was designed to determine whether a significant number of bacteria were killed after eight hours and after 24 hours when the cloths were new. Pieces of the cloths and sponges were saturated with solutions containing large numbers of *E. coli* and *S. aureus* and some canned baby food. After eight and 24 hours, the surviving bacteria were counted and the following ratings applied.

Ratings:

✓✓✓✓ = Excellent — kills almost all of both types of bacteria within eight hours.

✓✓✓ = Very good — kills almost all of both types of bacteria within 24 hours.

✓✓ = Good — kills a large number of both types of bacteria within 24 hours.

✓ = Fair — kills a reasonable number of at least one type of bacteria within 24 hours.

✗ = No significant reduction in one type of bacteria, or allows bacteria to multiply.

In addition to the antibacterial cloths and sponges, we also tested two ordinary cloths and one ordinary sponge. One of the cloths was allowed to dry out after the food was applied, and it received a ✓ rating. The other cloth and the sponge were treated in the same way as the antibacterial ones and there was no significant bacteria reduction (a rating of ✗) for both. These served as controls, and aren't included in the table.

3 Antibacterial rating after washing

We washed the cloths five times in a washing machine with detergent before testing them again to determine whether they retained their antibacterial qualities. We didn't test the **DOMEX** because it had no apparent antibacterial action in the first test (whereas the **CHUX Robuste** killed some *S. aureus*, but not enough for us to give it a ✓ antibacterial rating).

Bacteria used

The bacteria we used for the tests were a strain of *Escherichia coli* (*E. coli*, which comes from faecal matter) and a strain of *Staphylococcus aureus* (*S. aureus*, which comes mainly from humans — coughing, sneezing and skin infections). Tests of dishcloths in people's homes have found these bacteria are occasionally present. Certain strains of these bacteria can cause food poisoning under the right conditions.

Under normal home-use conditions, there would be other — mostly harmless — bacteria in the sponge or cloth that 'compete' with harmful bacteria for food, keeping their numbers down. We didn't include 'competition' bacteria or moulds in our samples.

Further information

■ For more on antibacterials, see *Revenge of the killer ... garbage bags?*, CHOICE, Jan/Feb 1999, and *Antibacterial cling wrap — what next?* (Choice Cuts, May 1999).

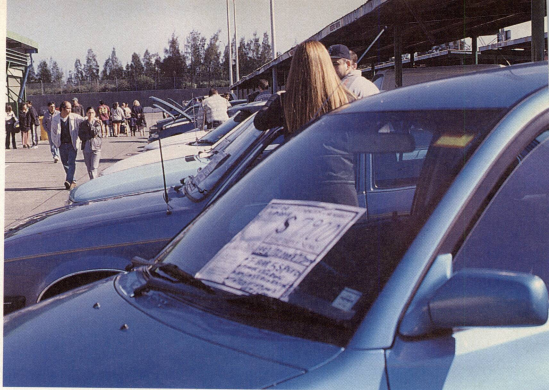
Advice on good food hygiene can also be found in the following CHOICE publications:

■ *Food poisoning — could it happen to you?*, CHOICE, September 1997.

■ CHOICE Factsheet: Keeping food fresh.

To get a copy of any of these, please note to us which you'd like and send a stamped, business-size envelope (one per article or factsheet) to CHOICE Customer Service, 57 Carrington Road, Marrickville 2204. Some of these articles can also be found on our website: www.choice.com.au.

Buying a
secondhand car can
be a challenge.
How do you avoid
getting a dud?



How to buy a used car

IN THIS ARTICLE

- A checklist of simple inspections you can do yourself (see *What to look for*, page 33).
- From our reliability survey: a list of car models with weaknesses to be aware of (page 34).
- The legal situation in your state or territory (page 35).

BEFORE YOU GO SHOPPING FOR A used car, do some homework. Once you've decided what type and size you want:

■ Decide how much you can afford to spend. There's more than just the purchase price to think of — the pre-purchase inspection by your motoring organisation, stamp duty, insurance and the fee to transfer registration.

■ Do some research into makes and models, considering:

— **Safety:** CHOICE regularly publishes the results of high-speed crash tests — check your back issues.

— **Reliability:** Our reader survey (see page 8) shows which models are worth searching for, and which are best avoided.

— **Insurance costs:** This varies from model to model. Once you've narrowed down your choice to two or three models, get some quotes for each.

— **Repair costs:** CHOICE regularly reports on the repair cost of a low-speed crash (the last one was in July this year). There are big differences between models.

— **Fuel consumption:** The Australian Greenhouse Office (AGO) *Fuel Consumption Guide* publishes results for all models. Ask your car dealer for a copy, order one from the AGO by phoning (02) 6274 1888, or check its website: www.greenhouse.gov.au/transport/fuelguide.

■ Decide where and how you want to buy the car (see *Dealer, auction or private sale?*, far right).

■ Check the legal situation in your state or territory (see *Rights and responsibilities*, page 35).

Hitting the road

You know what you want and you're ready to look at some cars.

■ Inspect the car using the checklist in *What to look for*, right, paying particular attention to the problem areas identified in CHOICE's car reliability survey (see page 34).

■ If you're definitely interested in a car and don't have the expertise yourself, you can arrange for an independent expert inspection through your state's motoring organisation (see *Rights and responsibilities* for contact numbers). This isn't usually possible if you buy at an auction.

■ If you buy the car from a dealer, they're legally obliged to guarantee that the car's debt-free. If not, check whether there's any money owing on it by calling the title register of the state or territory it's registered in (see *Rights and responsibilities* for contact numbers). Have the registration number, vehicle identification number (VIN) and engine number ready (see *What to look for* on where to find these).

This service is free, but doesn't give you a guarantee that the car can't be repossessed. For peace of mind (and a fee), you can ask for a certificate that offers legal protection.

■ Don't sign anything until you're completely happy with the car and the amount you have to

pay. Don't let the vendor pressure you into buying if you're not ready.

■ Once you've bought the car, arrange insurance before you drive it anywhere (see *Your car insurance toolkit*, CHOICE, August 1999).

■ Transfer the registration to your name. You usually have to do this within a few days of buying the car.

What to look for

Inspect the car in good light conditions (preferably daylight) so you don't miss anything.

Paperwork

✓ In a private sale, make sure the vendor is the owner. Ask to see their driver's licence and compare the details with those on the registration papers.

✓ Look at the car's compliance plate, which is usually found on the firewall between the engine area and the inside of the car. Match the **vehicle identification number** (VIN) and **date of manufacture** with those on the registration papers. Also check the **engine number** (which is marked on the engine itself) and the **number plates** against the registration papers. If any of the information doesn't match, ask for an explanation. It could mean the car's been stolen or (in case of the engine number) that the engine's been replaced without notifying the registration authority.

✓ In some states (see *Rights and responsibilities*), the seller must provide a certificate of roadworthiness.

Outside

✓ Check the paintwork for bubbles and colour differences, which could indicate rust or an accident. Use a fridge magnet to check suspicious areas for body filler — the magnet won't stick to filler.

✓ Panels that don't seem to fit properly, or doors, the boot lid and windows that don't open and close properly can indicate the car's been in an accident.

✓ Check the tyres, including the spare, for sufficient tread (at least 3–4 mm) and uneven wear (which can show a problem with the steering or suspension).

✓ Check under the car for oil leaks.

Under the bonnet

✓ Look at the dipstick. Grey or milky oil may indicate serious engine problems.

✓ Take off the radiator cap and check the coolant. It should be brightly coloured and clean. Oil in the coolant may indicate serious engine problems.

✓ Check the radiator cooling fins and the battery and its mounting platform for corrosion and other damage.

Inside

✓ Inspect the upholstery, trim and carpets for wear.

✓ Make sure the seatbelts are in good condition.

✓ Check whether the seats are still comfortable enough.

✓ Make sure all lights, equipment and accessories (such as air conditioning, windscreen wipers, power windows, wing mirrors, spare tyre, central locking and car radio) are there and work properly.

✓ Look for signs of rust under the carpet (if possible) and mats (don't forget the boot).

✓ Check that the jack and toolkit are in place and in good condition.

✓ Ask for the car radio's security PIN, if applicable.

Start the engine

With the bonnet open, start the engine and let it idle.

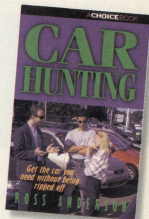
✓ Watch for exhaust fumes when starting the engine and during idling. For example, blue smoke may be caused by oil being burnt, which could indicate a serious problem.

✓ Excessive noise from the exhaust can indicate rust and the need for a new muffler.

✓ Listen for any irregular running noises, rattling or knocking in the engine.

✓ Look for any signs of leaks.

✓ Open the oil filler cap: fumes may indicate engine problems.



The CHOICE book *Car Hunting* can help you understand the tricks and the traps of the car trade — see page 38.

Dealer, auction or private sale?

Dealer

Buying from a dealer is usually more expensive than buying privately. However, there are advantages:

- In some states and under certain conditions, they must provide warranties (see *Rights and responsibilities*, page 35).
- They must guarantee there's no money owing on the car.
- You can often trade in your old car.

Auction

While you might be able to pick up a bargain at an auction, you really need to know about cars and what they're worth. You usually can't arrange for an inspection or even a test drive. So you'll be relying on visual checks. Types of auction vary from state to state — check with the auction house regarding warranty and money owing.

Private sale

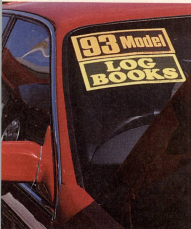
Buying a car privately is usually cheaper than buying from a dealer. However, you have to rely a lot more on your own judgment as you won't get any protection, such as a statutory warranty. You can have it inspected by your state's motoring organisation, though.

Market

Car markets bring private sellers and buyers together in one place, so from a legal point of view they're the same as buying privately. However, they allow you to look at a number of different cars without having to drive all over town. You probably won't be able to have the car inspected on the same day, but you can usually go for a test drive.



BUYING A USED CAR



On the road

- ✓ Take the car for a test drive, preferably on quiet roads where you can concentrate on the car rather than on heavy traffic. Make sure the car's adequately insured before you do, and take your time: one spin around the block is hardly enough to get a good picture of the car.
- ✓ Make sure the engine runs smoothly in all situations — when cruising, accelerating and decelerating both on flat roads and uphill.
- ✓ All gears should change smoothly up and down.
- ✓ Watch the dashboard for any warning

lights, and keep an eye on the temperature gauge.

- ✓ Listen for rattling or any other body noises — driving over speed humps is a good check for this.
- ✓ Watch the exhaust for smoke — accelerating uphill is a good check for this.
- ✓ The steering wheel shouldn't have more than 5 cm of play.
- ✓ On a straight road, ease your grip on the steering wheel and see if the car pulls to one side, which can indicate worn suspension or misaligned steering.
- ✓ Also on a straight road and after checking for traffic behind you, try the brakes several times. The car shouldn't pull to one side, and the brake pedal should feel firm. □

Models with problems

This list below shows models from our car reliability survey (see page 8) that had significantly more problems than average in certain areas, compared to other models in their age group. If you're thinking of buying one of these models secondhand, pay particular attention to these areas. If a model isn't on the list, it means it wasn't included in the survey or we didn't find any significant problems with it.

Each model was placed into one of three age groups (January 1988–December 1991, January 1992–December 1994 and January 1995–March 1998), and compared with other models in this group. If a model was manufactured across two age groups (for example, the **Ford Falcon EF**), we split the survey responses accordingly, and compared them separately within each age group. A problem area that came up as significantly worse compared to other models in one age group may not necessarily have come up in the other age group (for example, 'steering' for the **Falcon EF**).

- **Daewoo Cielo**, November 1995–July 1997: interior.
- **Ford Fairlane NA–NC**, 6-cylinder, June 1988–December 1991 (A): air conditioning, engine cooling, minor electrics (B), suspension.
- **Ford Fairlane NF–NL**, 6-cylinder, March 1995–March 1998 (A): exhaust, minor electrics (B).
- **Ford Falcon EA**, 6-cylinder, March 1988–June 1991 (C): air conditioning, automatic transmission, body exterior, brakes, clutch, computerised engine management, cruise control, engine mechanics, engine cooling, exhaust, ignition, minor electrics (B), rust, steering, suspension.
- **Ford Falcon EB–ED**, 6-cylinder, January 1992–August 1994 (C): air conditioning, brakes, engine mechanics, engine cooling, exhaust, ignition, minor electrics (B), steering, suspension.
- **Ford Falcon EB–ED**, V8, January 1992–August 1994 (C): engine cooling, ignition, steering, suspension.
- **Ford Falcon EF**, 6-cylinder, August 1994–December 1994 (C): air conditioning, brakes, engine cooling, exhaust, minor electrics (B).
- **Ford Falcon EF**, 6-cylinder, January 1995–September 1996 (C): air conditioning, body exterior, brakes, cruise control, engine mechanics, engine cooling, exhaust, minor electrics (B), steering.
- **Ford Falcon EL**, 6-cylinder, September 1996–March 1998 (C): body exterior, engine cooling, steering.
- **Holden Barina MF**, December 1988–December 1991: exhaust.
- **Holden Barina SB**, January 1995–March 1998: engine cooling.

- **Holden Commodore VL**, 6-cylinder, January 1988–August 1988 (D): air conditioning.
- **Holden Commodore VN–VP**, V6, August 1988–December 1991 (D): body exterior, exhaust, interior, steering.
- **Holden Commodore VN–VP**, V8, March 1989–December 1991 (D): air conditioning.
- **Holden Commodore VP**, V6, January 1992–July 1993 (D): brakes, engine cooling, steering.
- **Holden Commodore VR**, V6, July 1993–December 1994 (D): air conditioning, body exterior, cruise control.
- **Holden Commodore VR**, V6, January 1995–April 1995 (D): engine cooling.
- **Holden Commodore VS**, V6, April 1995–August 1997 (D): brakes, engine mechanics, ignition, steering.
- **Holden Commodore VT**, V6, September 1997–March 1998 (D): air conditioning, body exterior, brakes, interior, minor electrics (B).
- **Hyundai Excel**, January 1992–October 1994: brakes, exhaust, engine mechanics, manual transmission.
- **Hyundai Excel**, November/December 1994: exhaust.
- **Hyundai Excel**, January 1995–March 1998: suspension.
- **Mazda 626**, V6, June 1992–December 1994: ignition.
- **Mitsubishi Magna TE–TF**, 4-cylinder, April 1996–March 1998: automatic transmission, brakes.
- **Mitsubishi Magna TN–TP**, 4-cylinder, January 1988–April 1991: driveline, rust.
- **Nissan Patrol Diesel**, January 1995–December 1997: driveline.
- **Nissan Pintara RWD**, January 1988–December 1990: exhaust.
- **Nissan Pulsar**, January 1988–September 1991: computerised engine management.
- **Nissan Skyline**, January 1988–December 1990: driveline.
- **Subaru L-series wagon 4WD**, January 1988–December 1991: driveline.
- **Subaru L-series wagon 4WD**, January 1992–December 1993: rust.
- **Subaru Liberty AWD**, October 1989–December 1991: suspension.

- (A) Includes LTD models.
- (B) Such as lights, windscreen wipers and power windows.
- (C) Includes Fairmont and Futura models.
- (D) Includes Berlina and Calais models.

Rights and responsibilities

Each state and territory has different regulations for the sale of used cars — see our summary below. If you require more detailed information, call your fair trading or consumers affairs department on the number supplied.

Licensed dealers usually have to display a form on the car's dashboard or windscreen that provides some basic information such as the year of manufacture, odometer reading and warranty details. Dealers also have to guarantee there's no money owing on the car.

In most states and territories, they also have to provide a statutory warranty on certain used cars. However, this often excludes parts such as the radio, air conditioning or battery — make sure you clearly understand what's covered and what isn't.

ACT

When you buy from a dealer, a car that's not more than 10 years old and hasn't travelled more than 160,000 km carries a three-month/5000 km statutory warranty.

If the car's travelled less than 15,000 km, you'll get a warranty lasting for 20,000 km or a period of 12 months, minus one month per 2000 km the car's travelled before the sale (for example, seven months for a car that's travelled 10,000 km).

When buying from a dealer, you're entitled to a cooling-off period of three days after you've signed the purchase agreement. If you want to cancel the agreement within the cooling-off period, you need to do so in writing, and the dealer can charge you \$100 or 1% of the purchase price, whichever is greater.

Neither dealers nor private sellers have to provide the buyer with a certificate of roadworthiness.

- **Title register:** REVS, 1800 424 988.
- **Motoring organisation:** NRMA, 13 21 32 (general); (02) 6240 4305 (inspection bookings).
- **Consumer Affairs Bureau:** (02) 6207 0400; website: www.consumer.act.gov.au.

Northern Territory

When you buy from a dealer, a car that's less than 10 years old and has travelled less than 160,000 km carries a three-month/5000 km statutory warranty.

There's no cooling-off period once you've signed the purchase agreement.

Neither dealers nor private sellers have to provide the buyer with a certificate of roadworthiness.

- **Title register:** REVS, 1800 424 988.
- **Motoring organisation:** AANT, (08) 8981 3837.
- **Office of Consumer Affairs and Fair Trading:** (08) 8999 5184; website: www.nt.gov.au/caft.

NSW

When you buy from a dealer, a car that's not more than 10 years old, hasn't travelled more than 160,000 km and doesn't cost more than \$55,134 carries a three-month/5000 km statutory warranty. This doesn't apply to commercial vehicles.

There's no cooling-off period once you've signed the purchase agreement.

Private sellers have to provide the buyer with a certificate of roadworthiness ('pink slip') that's not more than a month old.

- **Title register:** REVS, (02) 9600 0022 (in Sydney) or 1800 424 988 (outside Sydney).
- **Motoring organisation:** NRMA, 13 21 32 (general); 1300 362 802 (inspection bookings).
- **Department of Fair Trading:** 13 32 20; website: www.fairtrading.nsw.gov.au.

Queensland

Car dealers in Queensland don't have to provide statutory warranties with used cars, and there's no cooling-off period once you've signed the purchase agreement.

Both dealers and private sellers have to provide the buyer with a certificate of roadworthiness.

- **Title register:** REVS, (07) 3246 1599.
- **Motoring organisation:** RACQ, 13 11 11 (general); (07) 3361 2700 (inspection bookings).
- **Office of Consumer Affairs:** (07) 3246 1500; website: www.consumer.qld.gov.au.

South Australia

When you buy from a dealer, a car that costs more than \$6000 carries a three-month/5000 km statutory warranty. If it costs between \$3001 and \$6000, the warranty is two months/3000 km. Cars that cost less than \$3000, are older than 15 years or have travelled more than 200,000 km don't have to carry a statutory warranty.

There's no cooling-off period once you've signed the purchase agreement.

Neither dealers nor private sellers have to provide the buyer with a certificate of roadworthiness.

- **Title register:** Transport SA, 13 10 84.
- **Motoring organisation:** RAA, (08) 8202 4610 (general); (08) 8202 4688 (inspection bookings).
- **Office of Consumer and Business Affairs:** phone (08) 8204 9777; website: www.ocba.sa.gov.au.

Tasmania

When you buy from a dealer, a car that's less than seven years old and has travelled less than

120,000 km carries a three-month/3000 km statutory warranty. This doesn't apply to commercial and four-wheel-drive vehicles.

There's no cooling-off period once you've signed the purchase agreement.

Neither dealers nor private sellers have to provide the buyer with a certificate of roadworthiness.

- **Title register:** Department of Transport, 13 11 05.
- **Motoring organisation:** RACT, 13 27 22 (general); (03) 6232 6333 (inspection bookings if in Hobart; different numbers elsewhere).
- **Office of Consumer Affairs and Fair Trading:** 1800 005 220 or (03) 6233 4567 (if in Hobart); website: www.justice.tas.gov.au/ca.

Victoria

When you buy from a dealer, a car that's less than 10 years old and has travelled less than 160,000 km carries a three-month/5000 km statutory warranty.

When buying from a dealer, you're entitled to a cooling-off period of three working days after you've signed the purchase agreement. If you want to cancel the agreement within the cooling-off period, you need to do so in writing, and the dealer can charge you \$100 or 1% of the purchase price, whichever is greater.

Both dealers and private sellers have to provide the buyer with a certificate of roadworthiness.

- **Title register:** VSR, (03) 9348 1222.
- **Motoring organisation:** RACV, 13 19 55 (general and inspection bookings).

■ **Office of Fair Trading and Business**

Affairs: 1800 656 393 or (03) 9627 6001 (if in Melbourne); website: www.justice.vic.gov.au.

Western Australia

When you buy from a dealer, a car that costs between \$2001 and \$3999 carries a two-month/3000 km statutory warranty. If the car costs \$4000 or more, the warranty is three months or 5000 km.

There's no cooling-off period once you've signed the purchase agreement.

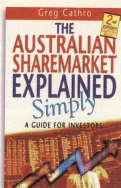
Neither dealers nor private sellers have to provide the buyer with a certificate of roadworthiness.

- **Title register:** REVS, (08) 9222 0711 (Perth); 1800 198 333 (outside Perth).
- **Motoring organisation:** RAC of WA, (08) 9421 4444 (general); (08) 9421 4250 (inspection bookings if in Perth; different numbers elsewhere).
- **Ministry of Fair Trading:** 1800 199 117 or (08) 9222 0666 (if in Perth); website: www.wa.gov.au/mft.

The Australian Sharemarket Explained Simply

This book will help you understand how Australian sharemarkets work. It includes invaluable information about how to make buying and selling decisions, and what sort of fees, charges and returns you can realistically expect. Written in an easy-to-read, concise style, it will assist you when selecting stocks and structuring your portfolio, and help you assess how much of the investment process you should undertake yourself.

\$20 Code: ASES

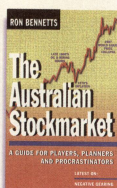


The Australian Stockmarket

This is not a beginner's guide to the stockmarket — it assumes you know a little and want an accessible guide to increasing your knowledge.

The Australian Stockmarket contains information about the stock and related markets. It includes details about market cycles, derivatives, taxation, investment strategies, and discusses how economic events affect the stockmarket.

\$17 Code: ASTM



Before and After Retirement

Do you dream of early retirement? Do you have enough money to support yourself in comfort if you live into your nineties? Whether you're five, 10 or 20 years away from retirement the time to start planning for it is now.

This book will help you make the best decisions about your retirement years. It explains the jargon used in retirement issues, and what you need to know about pensions, nursing home fees, superannuation and tax. It shows you ways to plan for a successful retirement and raises the questions to ask when making those plans.

\$25 Code: BAAR



Controlling Your Credit Cards

Have you bought a super bargain on a credit card lately? Did you use your credit card in the sales? And did you use it wisely?

While you may have saved money buying something on sale, if you bought it with a credit card that doesn't offer you the best financial deals and you don't manage your repayments well, that saving may well be lost by the end of the month. *Controlling Your Credit Cards* explains how credit cards work and how to use them to your advantage.

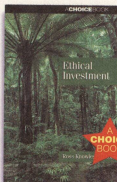
\$20 Code: CYCC



Ethical Investment

This is the first Australian book on this topic. Its expert contributors provide a bounty of information to help you invest your money wisely and ethically. Some of the issues include looking at a company's ethics, details and ratings of 22 selected ethical investments, and examples of how to invest in your own home (tax-free) and indirectly in the environment, by making your home energy-efficient.

\$15 Code: ETHI



Good Advice

You can test drive a car, visit a house before buying it, and try on a new outfit in the shop ... but how do you check a financial adviser before you invest? *Good Advice* will tell you.

It raises useful questions to consider and includes appraisal checklists to help you select the best adviser for your situation. Austin Donnelly has drawn on over 45 years of experience to prepare a book that will help you to assess the quality of financial advice before acting on it.

\$17 Code: GDAD

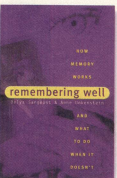


Remembering Well

Over your lifetime your memory and how it works changes, and the changes don't necessarily mean that you're developing Alzheimer's disease or early senility.

Remembering Well explains how your memory works, the changes you can expect, what you can do to cope with them, what affects memory and what isn't 'normal'.

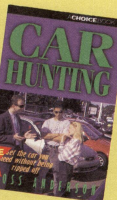
\$17 Code: RWEL



Car Hunting

Before you buy or sell a car, read *Car Hunting* to understand the tricks and traps of the auto trade and to be sure you get the best price.

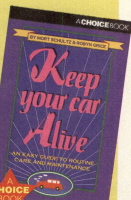
\$16 Code: CARH



Keep Your Car Alive

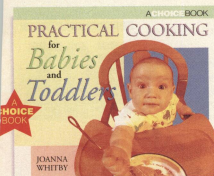
Once you've bought your car the best way to make the most of it and your money is to keep it in good running order — *Keep Your Car Alive* provides you with practical advice about keeping your car running in tip-top condition.

\$16 Code: KYCA



BUY BOTH AS A SET: \$27 (SAVE \$5)

Code: AUTO

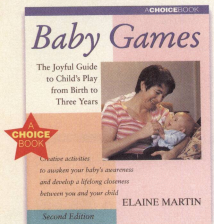


Practical Cooking for Babies and Toddlers

Practical Cooking for Babies and Toddlers contains more than 100 delicious recipes for babies over six months of age. Using a minimum of ingredients and step-by-step practical instructions, recipes are given for breakfasts, light and main meals, vegetables and sauces, desserts, snacks and party foods.

This book also includes information about nutrition and hygiene.

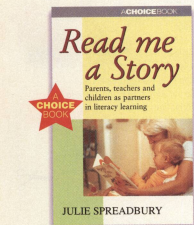
\$20 Code: PCFB



Baby Games

Playing with your baby creates special bonds of love, communication and caring that will last a lifetime. As your child grows from infant to toddler to preschooler, *Baby Games* offers rhymes, songs, finger plays, activities and games to help create a magical childhood. It's your guide to playing joyfully with your child.

\$20 Code: BGCB

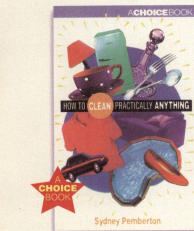


Read me a Story

Read me a Story explains simply how parents and teachers can work together with children to foster not only literacy learning but also a love of books and reading.

It looks at the importance of parents as a child's first teachers, emphasises the need for interaction between adult and child when reading aloud in the home, and gives parents and teachers practical ways to link homes and school to encourage reading.

\$13 Code: RMAS

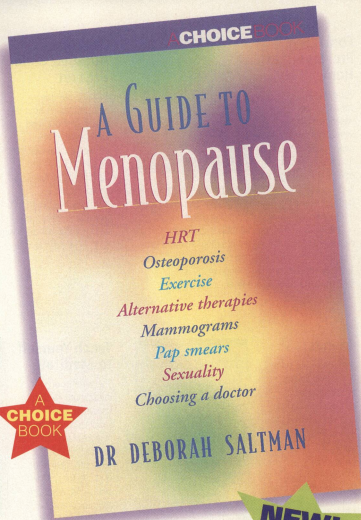


How to Clean Practically Anything

This book provides you with cleaning advice for every part of your home.

It includes comprehensive stain-removal guides, recipes for cleaning products, advice about hiring a professional cleaner and an easy-to-follow cleaning calendar.

\$17 Code: HCPC



A Guide to Menopause

*HRT
Osteoporosis
Exercise
Alternative therapies
Mammograms
Pap smears
Sexuality
Choosing a doctor*

DR DEBORAH SALTMAN

NEW!
from
CHOICE Books

A Guide to Menopause

Dr Deborah Saltman

The end of reproductive life is seen as a mixed blessing by many women. Being informed of the changes that may — or are — occurring to you can be a great comfort. Professor Saltman explains the processes and procedures associated with the menopause, the examination and tests that may be required, and different therapies that women may consider, including phytoestrogens and HRT. This book also includes a unique chapter about finding information and support groups on the menopause on the Internet.

\$18 Code: AGTM

Food Preserving at Home

Food Preserving at Home will be welcomed by the increasing number of people who conserve fruit windfalls and other food surpluses. It gives practical, easy-to-understand advice on canning (bottling), pickling, freezing, drying and smoking food. It also includes recipes for jams and marmalades.

The book gives details about methods and equipment, dozens of recipes including low-salt pickles and low- or no-sugar jam, and clear general instructions and handy tables for a huge range of foods.

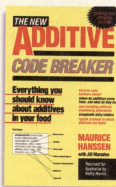
\$27 (hardback) Code: FPAH



The New Additive Code Breaker

This popular title will help you learn about the effects of those food additives that are labelled only as numbers on all sorts of foods. Each listing includes the additive's origin, function, effects and ADI (acceptable daily intake), and typical products in which it appears.

\$17 Code: NACB



Eat Your Genes

Eat Your Genes looks at what genetically modified foods are and how they have made it onto the market so quietly and quickly. It explains how they're produced, why they remain unlabelled and how they're arriving on our plates unannounced. "Stephen Nottingham takes a balanced and rational approach..." Rosemary Stanton

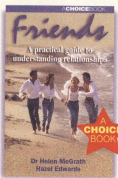
\$25 Code: EYG



Friends

Friendships are some of the longest and most important relationships in our lives. *Friends* helps you understand these significant, yet often overlooked, relationships. It includes real-life case studies, questionnaires and quizzes that will help you evaluate your 'friendship potential', and provides strategies you can use to build, nurture and keep your friends.

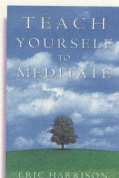
\$17 Code: FREN



Teach Yourself to Meditate

The benefits of meditation are widely known and also supported by scientific research, and this is one of the easiest guides to meditation we have seen. *Teach Yourself to Meditate* contains a series of meditation exercises, all of which can help you counter the stress of everyday life.

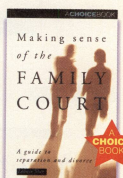
\$20 Code: TYTM



Making Sense of the Family Court

Dealing with the Family Court is difficult for many people, but with this book to guide you it can be a little easier. Written in everyday language, *Making Sense of the Family Court* outlines the court processes, clearly explaining how the court works and what it can do. It also includes advice about where to find further information and help, a glossary of legal terms and a list of forms.

\$16 Code: MSFC



Order Form

Code	Title	Qty	Item price	Total price

Plus postage and handling (\$4 for one item plus \$1.50 for each extra item)

Total

Send your payment to: Australian Consumers' Association,
57 Carrington Road, Marrickville 2204 • Phone (02) 9577 3399 • Fax (02) 9577 3355
World Wide Web address: www.choice.com.au

Money-back guarantee: If you are not completely satisfied with your purchase, return book(s) within 30 days for full refund of the purchase price.

I enclose ☐ cheque ☐ money order (payable to the Australian Consumers' Association)

or, I wish to pay by: ☐ Bankcard ☐ Mastercard ☐ Visa
☐ Amex ☐ Diners Club Expiry ____ / ____

Card number

Name on card

Signature

Mr/Mrs/Miss/Ms

Subscriber number

Address

Postcode

Phone (day)

Some books may have to be sent separately to keep postage costs down. Please allow 2 to 3 weeks for delivery. If any order cannot be filled for a substantial length of time, we'll let you know and give you the option of cancellation.

Is there any good reason to buy a vacuum cleaner that costs upwards of a thousand dollars? It may have a massage pad attachment or an air-freshening system, but will it clean your house any better?



Taken to the cleaners?

DO YOU SOMETIMES GET FED UP with your vacuum cleaner — it leaves bits of fluff or grit behind or doesn't clean stairs or the edge of carpets properly? If so, you might have seen ads for pricier models and wondered if it's worth splashing out. Surely a vacuum cleaner costing thousands of dollars will do a much better job — or will it?

We tested 13 vacuum cleaners costing from \$500 to \$3000 to see if it's worth spending a lot more money. We also retested the winning upright and barrel models from our last vacuum cleaner test (see CHOICE, July 1998) to see how they'd compare. Three of the new models tested, AMWAY, KIRBY and RAINBOW, are not available in shops. You can only buy them following a home demonstration (see *The pitch*, page 40); they were also the most expensive models.

You don't have to pay thousands

Our test shows that a bigger price tag doesn't necessarily mean a better machine. Two models achieved very good scores overall — the upright HOOVER U6331-906 and WERTHEIM W4030 barrel cleaner — and they beat our benchmark upright from the last test by some way. While they're not exactly cheap at \$599 and \$849 respectively, they're a snip compared to some of the models they outperformed.

But really, you don't need to spend this much. The upright and barrel cleaners retested from our 1998 report both cost around \$200: the upright

would have ranked fourth in this test, while the barrel slotted in at the bottom end of the rankings near models costing \$600 and upwards. Neither of these models is still available, but we think you can safely spend considerably less than \$500 and get a satisfactory vacuum cleaner.

Power and turbo heads

In past tests turbo and power heads often haven't done a better job than ordinary heads, so they tend to be a waste of money. The exception in this test was the WERTHEIM, which has a power head as a standard accessory. This works very well; in fact, you need it to do a good job, and the dirt removal score in the table is with the power head.

We also tested turbo heads supplied with the NILFISK GM430 and VAX V12; both picked up less dirt than the ordinary heads. This is probably because energy needed for suction is sacrificed to drive the turbine.

We bought the optional power heads for the MIELE S448i and ELECTROLUX Excellio Power Max Z5240 and neither worked better than the standard head.

IN BRIEF

- The two comparatively cheap models in the *What to buy* list out-cleaned models costing thousands of dollars — but you can get a good vacuum cleaner for much less than any of these.
- Asthmatics might be tempted to buy an expensive machine, but it could be worth making some cheaper changes around the house first.

WHAT TO BUY

WERTHEIM W4030 (barrel)	\$849
HOOVER U6331-906 (upright)	\$599

The HOOVER achieved the best dirt removal score, but the best overall score went to the WERTHEIM, which did well for ease of use as well as dirt removal.

Upright, barrel or canister?

- Canister models work like barrels, but you pull an upright canister behind you instead of a horizontal barrel.
- Uprights need more (and taller) storage space. They're also more awkward to use on stairs and under low furniture and tend to be noisier.
- The most appropriate type depends on your home. If you have a multi-storey house with wooden floors, a barrel model may suit your needs; if you don't have stairs, but do have wall-to-wall carpeting, an upright might be a better choice.

In the shop

- When you're looking for a vacuum cleaner, try out various models in the shop. You may not be able to judge their cleaning performance, but it should help you decide which is easiest to use.
- Check how **noisy** they are and that the **head glides easily**, without scraping or sticking.
- Move them around to check that they're **manoeuvrable** enough and not too heavy to manage.
- Make sure you can easily reach and operate the **on/off switch** and check there's sufficient **cord length**.
- If the machine you're considering needs **disposable dustbags**, make sure they're easily available and not too expensive.

Accessories

- Check whether tools such as a **crevice nozzle** (for narrow corners and around chair cushions), an **upholstery brush** (for curtains and soft furnishings) and a **dusting brush** are supplied with the vacuum cleaner or have to be bought as extras.

Additional features

- **Adjustable head height:** You can usually adjust how close the bristles are to the carpet on an upright, which may be useful if you have carpets with different pile heights.
- **Power and turbo heads:** Some barrel and canister models have optional power or turbo heads that are supposed to improve their performance. In this and previous tests, very few did, with the exception of the **WERTHEIM's** power head.
- **Blower:** If you often need to blow up an airbed, for example, look for a vacuum cleaner that you can switch to blow air instead of suction.
- **Filter:** See *Allergies*, far right.

The pitch

While the expensive home-demonstration models are no better at standard vacuuming, they do offer extra features (see *Everything but the kitchen sink*, page 42). We haven't tested these, so if you're interested there's only one way to find out about them: the home demonstration.

If you do invite sales reps into your home, you should know what you're letting yourself in for. The three who visited us stayed up to an hour and a half. They may leave you feeling dirty if you don't buy, and guilty about the time and effort they've taken.

They did everything from vacuuming the beds to pulling apart the existing vacuum cleaner, and one of them even offered to shampoo the entire house.

They also made some fairly dubious claims. One told us a rival was going out of business, which it hasn't (at the time of writing). Another claimed his cleaner was second only to another expensive brand, which cost \$5000 (it doesn't). A third told us that the air inside most houses was so dirty that, if you took blocks of this air and stacked them together, visibility would be reduced to 1 km.

And remember — there's considerable pressure on these reps to make a sale. One happily informed us that one more sale in the month and he'd have his own office and a free holiday. If you're going to buy from them, it's worth bargaining — we saved hundreds without really trying on one model, but we appear to have paid over the odds for another (see note 1, page 43).

Prices shown are a good target to aim for, based on nationwide checks in May/June 1999. Anything lower is a bargain.

WERTHEIM
W4030

Type: Barrel

Target price: \$849

Good points

- Best overall.
- Second-best dirt removal score (using its power head).
- Easy to use.
- Has a good range of tools with onboard storage.
- Comparatively quiet.

Bad points

- Doesn't clean corners or edges well.
- One of the most unreliable brands in our survey (see *How reliable have our subscribers found them?*, page 42), and only 67% of subscribers who own a Wertheim would buy one again.

HOOVER
U6331-906

Type: Upright

Target price: \$599

Good points

- Best for dirt removal.
- Has a good range of tools with onboard storage.
- Effective power drive: easy to push forwards across the carpet, but not quite so easy to pull backwards.
- Air freshener dispenser.
- Can be adjusted for different carpet pile heights.
- Has a long cord, so you can clean a good distance from the power point.

Bad points

- Relatively noisy — rattles.
- Doesn't clean corners and edges well.



What about the rest?

The Rainbow E-1 (right) traps dust in a plastic bowl filled with water. It was the only other model to get a reasonably good overall score, but at \$2800 it's hardly a good buy compared with the two models in the *What to buy list*. The Kirby G5A (centre right) and Amway CMS 2000 1245 (far right) were OK performers, but at \$2400 and \$1360 respectively, they're not worth buying either. Our testers also found the Amway top-heavy and tiring to use.



The Oreck XL2606HH (1), Electrolux Excellio power Max (2), Nilef S448I Black Jewel (3), Miele GMA30 (4), Electrolux Airclean Power System 21740 (5), Vax V12 (6), Dyson DC02 De Stijl (7) and Dyson DC03 Dual Cyclone (8) had very similar — and uninspiring — dirt removal scores: the Oreck a little better than the pack, the Dyson DC02 De Stijl a little worse, but the Oreck was very noisy. They cost between \$579 and \$849. See the table overleaf for more details.

Allergies

One of the claims made for expensive machines is that they help people with allergies or asthma. The gist is that by cleaning up more of the dirt and dust mites in your carpets and furniture, they'll prevent exposure to these irritants. Also, it's claimed that cheaper cleaners don't have very good filters and bags, so a lot of the dust they pick up is simply pushed back into the room with the exhaust air.

We tested these expensive vacuum cleaners for their dust emission: this test considers 99.99% retention of the dust as acceptable and anything below that as unacceptable. The seven rated as acceptable (see the table overleaf) all have HEPA (or S-class) filters. The **ORECK XL2606HH**, which boasts a "Celoc Hype-Allergenic Filter System", was one of the worst performers in this test.

And remember — retaining dust well doesn't mean a vac picks up a lot to start with. The two **DYSONS** retained more than 99.99% of the dust, but didn't remove much in the first place.

Asthma SA offer some tips to help allergy sufferers keep their home allergy-friendly:

- A vacuum cleaner with a HEPA filter and good suction.
- Vacuum carpets regularly and thoroughly.
- Short-pile carpets are better, as long-pile carpets hold more dust.
- If dust mite allergy is a problem, removing carpets may be the best option. Wearing a dust mask when vacuuming could help.
- It's important to empty the dust compartment of the vacuum cleaner regularly.

For more information about filter types, see CHOICE, August 1997. For a copy of the Asthma SA booklet, *A Guide to Creating a Low Allergy Home* (\$4.95), call (08) 8362 6272.

Bins or bags?

Some of these models are fitted with plastic bins to collect the dirt instead of paper bags. The manufacturers claim they're better for various reasons:

- Both **DYSONS** (see photo) have plastic bins and claim that, "Because there's nothing to block the air flow, the Dyson is the only vacuum cleaner in the world to maintain 100% suction 100% of the time." We put their claim to the test and they're right: both models picked up just as much dirt with a full bin as an empty one. But since their original dirt removal scores were the two lowest in the test, we weren't too impressed.
- The **RAINBOW** rep told us he thinks models with bags are a health hazard because bacteria breed inside the bags; every time you vacuum, your cleaner will spit dirt and bacteria back out again. He claimed that the **RAINBOW** cleaner, with a water-filled reservoir, would retain the dirt and not allow bacteria to breed. The **RAINBOW** did do very well, but it was

outscored for dust retention by two bag models with HEPA filters (see *Allergies*, above).

- The **AMWAY** also has a plastic dust container and the rep claimed it would emit less dirt than a barrel model. But the **AMWAY** didn't do well in the dust emission test, while three barrel models did.

100% suction 100% of the time ... but how much suction did the Dyson start with (see left)?



Brand / model (in rank order)	Manufacturer / distributor	Origin	Target price (\$)*	Warranty	Reach (m)	Weight (kg)	Power at maximum speed (W)	Upholstery tool	Onboard accessory storage	Dust collector
WERTHEIM W4030 (b)	Godfreys	Sweden	849	2 (B)	9.8	9.0	1220	✓	✓	Paper bag
HOOVER U6331-906 (u)	Hoover Floorcare	US	599	2 (B)	10.1	9.9	640	✓	✓	Paper bag
RAINBOW E-1 (c)	Rainbow	US	2800	4 (C)	10.2	14.8	910	✓	✓	Plastic bin
KIRBY G5A (u)	Kirby	US	3500	3 (C)	9.3	11.0	585	✓		Paper bag
AMWAY CMS 2000 1245 (u)	Amway	US	1360	2 (D)	9.2	9.8	830	✓	✓	Plastic bin
ORECK XL2606HH (u) (A)	Innovations	US	744 (A)	3 / 10 (E)	9.4	4.2	390	✓	✓	Paper bag
ELECTROLUX Excellio Power Max Z5240 Super Silence (b)	Electrolux	Sweden	559	2 (C)	11.6	8.6	1320	✓	✓	Paper bag
MIELE S48Bi Black Jewel (b)	Miele	Germany	699	2 (C)	11.5	9.7	1230	✓	✓	Paper bag
NILFISK GM430 (b)	Nilfisk	Denmark	699	3 / 1 (F)	10.0	8.8	1360	✓	✓	Paper bag
ELECTROLUX Airclean Power System Z1740 (u)	Electrolux	UK	649	2 (C)	9.2	7.6 / 8.6 (G)	1420		✓	Bag / bin
VAX V12 (c)	Vax	Australia	579	2 (C)	10.2	9.5	1080	✓	✓	Paper bag
DYSON DC02 De Stijl (b)	Dyson	UK	699	2 (C)	9.0	8.5	1090	✓	✓	Plastic bin
DYSON DC03 Dual Cyclone (u)	Dyson	UK	849	2 (C)	7.8	6.8	620	✓	✓	Plastic bin

Everything but the kitchen sink

Some of these vacuum cleaners, particularly the more expensive ones, come with an amazing array of extras.

The **KIRBY** tops the list with its massage attachment, which doubles as a sander and polisher, as well as its carpet shampooer. The sales rep told us it can do 120 jobs around the house, from blowing up balloons to spraying for cockroaches.

The **AMWAY** has a carpet shampooer, and the **RAINBOW** a range of air fresheners to "aromatize" and "deodorize" your environment.

Two models, the **KIRBY** and **HOOVER U6331-906**, have a power drive to help you move them around. The **KIRBY**'s worked very well; the **HOOVER** was easy to move forwards, but a bit heavy to move backwards. With the power drive turned off, they're both hard to move around.



Quick sand and polish after your massage with the Kirby's range of attachments?

How reliable have our subscribers found them?

We asked a group of subscribers if they'd had any problems with their vacuum cleaners over the previous 12 months and whether they'd buy the same brand again.

Just over one in 10 vacuum cleaners had needed repair, at an average cost of \$70. The most common problems were with hoses or wands and suction.

The graphs show the results for those brands for which we received enough responses to report on. The number in brackets tells you how many readers reported on the brand. Note that the results are for all vacuum cleaners, not just expensive ones. They don't cover all brands on the market and they do include brands we didn't test this time. The percentage of people who would buy an expensive Kirby again is particularly interesting.

Percentage not needing repair

Black & Decker (50)	96
Hitachi (128)	96
General Electric (96)	95
Panasonic/National (193)	94
Philips (72)	93
Sanyo (343)	93
Volta (657)	92
Nilfisk (89)	91
Vax (238)	90
Electrolux (677)	87
Hoover (749)	85
Amway (67)	82
Kirby (84)	82
Miele (216)	81
Wertheim (207)	80

Percentage who would buy the same brand again

Nilfisk (91)	91
Miele (221)	87
Panasonic/National (197)	86
Volta (661)	84
Philips (72)	83
Hoover (758)	82
Electrolux (684)	81
Hitachi (130)	81
General Electric (97)	80
Vax (245)	78
Sanyo (352)	74
Wertheim (207)	67
Amway (68)	66
Black & Decker (51)	61
Kirby (83)	45

3	4	4	5	6	7	8	9		
Dustbag-full indicator	Variable suction (bleed valve)	Variable power	Blower	Noise (dB)	Performed well in dust retention test	Dirt removal score (%)	Ease of use score (%)	Overall score (%)	Brand / model (in rank order)
✓		✓		67		75	76	75	WERTHEIM W4030 (b)
✓				74		78	54	71	HOOVER U6331-906 (u)
	✓		✓	74	✓	66	61	65	RAINBOW E-1 (c)
	✓		✓	75		53	67	57	KIRBY GSA (u)
✓				76		56	44	52	AMWAY CMS 2000 1245 (u)
			✓	80		44	66	51	DRECK XL2606HH (u) (A)
✓	✓	✓		64	✓	37	79	50	ELECTROLUX Excellio Power Max Z5240 Super Silence (b)
✓	✓	✓	✓	64	✓	38	79	50	MIELE S448i Black Jewel (b)
✓	✓	✓		66	✓	37	70	47	NILFISK GM430 (b)
✓		✓		74	✓	37	67	46	ELECTROLUX Airclean Power System 21740 (u)
		✓		73		35	69	45	VAX V12 (c)
✓	✓			73	✓	29	77	43	DYSON DC02 De Stijl (b)
✓	✓ (H)	✓		73	✓	33	66	43	DYSON DC03 Dual Cyclone (u)

* Prices shown are a good target to aim for when shopping around, based on nationwide checks in May/June 1999.

- (b) Barrel.
(c) Canister.
(u) Upright.
(A) Comes with a small barrel cleaner too.
(B) Parts and labour.
(C) Material and workmanship.
(D) Against manufacturing defects.
(E) Three years material and workmanship on motor, 10 years for casing.
(F) Three years material and workmanship on motor, one year on the remainder of the machine.
(G) With this machine the dust can be collected in either a paper bag or a bin. The higher weight is for the plastic bin.
(H) Comes on automatically when using the onboard hose.

1 Target price

Prices for the models sold through reps may vary considerably. **RAINBOW** told us its vac should cost \$2800 to \$3800; we were charged \$3600. **KIRBY** suggests \$2590 for the vacuum cleaner only or \$3500 including attachments, but we paid \$2400 for the whole lot. We paid \$1326 for the **AMWAY**, just under the recommended \$1360.

2 Power

We measured the power input to find out whether higher-wattage models are automatically better at cleaning — they're not.

3 Dust collector / dustbag-full indicator

It's worth checking where you can buy new paper bags and how much they'll be, particularly if you've bought following a home demonstration. If they're expensive or hard to find, a lot of subscribers tell us it makes the vacuum cleaner very inconvenient.

A **dustbag-full indicator** is useful, but vacuum cleaners generally perform better if they're emptied regularly anyway.

4 Variable suction / variable power

Some models have a 'bleed' valve on the wand that you can open during use to lower the suction. This way, thinner rugs or curtains are less likely to be sucked into the cleaning head. When the valve is open, the noise level generally increases.

On some machines you can lower the suction by lowering the machine's power, which decreases its noise level as well as its suction.

5 Noise

We measured noise from the user's position. Uprights are generally noisier than barrel models, and the two canister cleaners in this test were noisier than all but one of the barrel models. They're all noisy enough to drown normal conversation.

6 Performed well in dust retention test

See *Allergies* on page 41 for more on this.

7 Dirt removal score

We embedded 100 grains of specially prepared dirt into a section of carpet and vacuumed it to a set pattern and speed. The dirt collected was then weighed and recorded as a percentage of the dirt applied. After doing this four times for each cleaner, we averaged the results and converted them into a score out of 100.

We used a 100% nylon carpet, which is the most popular type of domestic carpet in Australia. On other carpet types, the differences between cleaners may not be so marked.

If the dirt removal scores seem higher overall than in previous tests, it's because we've allowed a margin for picking up surface fluff on top of the more stringent embedded-dirt test.

8 Ease of use score

This is based on:

- How manoeuvrable the vacuum cleaner is.
- How easy it is to move the cleaning head over carpet and under low furniture.
- How close it can get to edges and into corners.
- How difficult it is to empty and change the dustbag.
- How easy it is to use the accessories, including whether there's onboard storage.
- Use on stairs.
- Controls.

9 Overall score

We calculated the overall score by weighting dirt removal and ease of use as follows:

- Dirt removal: 70%.
- Ease of use: 30%.

For people with a disability

We assessed the vacuum cleaners according to guidelines drawn up by an occupational therapist from the Independent Living Centre. The **ELECTROLUX Excellio Power Max** and the **MIELE** are worth considering if you have a disability. Both are reasonably light and easy to manoeuvre, with a good range of onboard tools and good controls. They also have paper dustbags that are easy to replace.

Chip, shred, mulch ...

Chipper-shredders are likely to become more popular as local councils crack down on the collection of garden waste. You'll also find one useful if your garden needs regular pruning.

IN BRIEF

■ Two chipper-shredders in this test were considered unsafe and can't be recommended: the CHIPPER CHOPPER CC3300 and CC4000. They allowed possible hand contact with the cutting blades.

■ When you're shopping around, it's worth checking for a model that doesn't clog too much and is easy to unblock when it does.

CHIPPER-SHREDDERS, OR MULCHERS as they're often called, turn garden waste into a pile of mulch that can be spread on the garden to provide nutrients and reduce water loss. You shouldn't have to water as much and could save on your water bill.

Alternatively you can add the mulch to a compost heap, where it will break down faster than unprocessed material. Or, if you're forced to put garden waste in your bin, the chipper-shredder will reduce it to a much smaller volume so it takes up less space.

What can you mulch?

The models in this test can process smaller garden refuse between 32 mm and 45 mm in diameter. They can handle small branches, leaves, prunings, newspaper, green sticks and kitchen scraps. If you have larger branches, you'll have to buy a larger model.

Dry branches can be a problem, as they tend to bounce around a lot when they're fed into the machine. Some manufacturers warn against processing them because they can damage the blades. These chipper-shredders are more suitable for 'new', softer wood.

You feed the debris into the top of the unit through a chute (some models also have a narrow side inlet), where it is cut into much smaller pieces and deposited on the ground or into a bag or other receptacle.

WHAT TO BUY

ROVER Maxi Muncher 9664	\$690
VIKING GE120	\$645
VICTA Mulchmaker 1800 AH211	\$469
AL-KO Dynamic H2200S	\$693

Although the MASPORT's overall score puts it third in the table (page 47), it isn't included in the *What to buy* list as it performed poorly on stringy material.

How well do they work?

All the chipper-shredders performed at least satisfactorily. With one exception, the MASPORT, they coped with all the various materials put through them, and all produced good mulch of a similar appearance. The MASPORT jammed easily on certain materials (see profile, right).



Their performance differed in:

- Ease of feeding.
- The speed at which they processed material. The fastest machine (the ROVER Maxi Muncher 9664) processed 13.6 kg in 10 minutes and the slowest (the AL-KO Dynamic H2200S) 8.6 kg in the same time.
- Noise level and vibration.
- The tendency for fibrous or stringy materials to get caught in the blades.
- The ease with which the cover can be removed to clear any blockages.
- The ease with which blockages can be unclogged.

The profiles give details of these differences for each model.

Clog-free running

Jams are inevitable when using chipper-shredders. They usually happen when you try to work the machine too fast or when processing stringy material. When the machine jams, you have to stop it and unclog it.

Several models also showed a tendency to clog the upper chamber when fresh garden mix was pushed in too fast, while newspaper caused internal clogging in some models.

The RYOBI Trisecta Mulchmaker RGS2000 stood out as being much harder than the others to unclog. The bolts and cover were fiddly to remove and replace, and aligning the cover with the blades when replacing it was awkward. You can't do it in a hurry. All the other models were easy to unclog.

PROFILES

The models profiled don't have any safety problems, and they're listed here in rank order from left to right. Prices shown are a good target to aim for when shopping around, based on nationwide checks in June 1999. Anything lower is a bargain.

ROVER Maxi Muncher 9664

Target price: \$690

Good points

- Best at processing mulch quickly and efficiently, and easiest to use.
 - Very easy to feed material into inlet.
 - Output easily collected—it's the only model in the test to supply a collection bag.
 - The fastest machine tested (13.6 kg in 10 minutes).
- #### Bad points
- Difficult to use switch when wearing gloves.



VIKING GE120

Target price: \$645

Good points

- Second-best at processing mulch quickly and efficiently.
- Easy to use.
- Easy to feed material into inlet.
- Equal-lightest model tested.

Bad points

- The equal-noisiest model tested when processing material.
- Fresh garden mix tends to clog the upper chamber if fed in too quickly.
- No provision for collection bag; and the low outlet limits your choice of collection container.



MASPORT Garden Gobbler A29974

Target price: \$571

Good points

- Easy to feed material into inlet.
- Has provision for attaching a collection bag.
- Generally easy to use.
- Good instructions.

Bad points

- Not suitable for fibrous or stringy material (like willow), which jams readily, and therefore not included in the *What to buy* list.
- Newspaper tends to clog unless fed slowly.
- Low outlet limits your choice of collection container.



VICTA Mulchmaker 1800 AH211

Target price: \$469

Good points

- Equal-lightest model tested.

Bad points

- One of the slowest models.
- No provision for a collection bag.



AL-KO Dynamic H2200S

Target price: \$693

Good points

- The only model with a feed pusher to help you push material in.
- Has provision for attaching a collection bag.

Bad points

- Easy to clog upper chamber, particularly with fresh garden mix, if fed too quickly.
- The slowest model tested.



RYOBI Trisecta Mulchmaker RGS2000

Target price: \$510

Good points

- Has the most safety features.
- Good for collecting the output.
- Mulch bag strap provided.

Bad points

- The hardest model to use.
- Difficult to unclog (see page 44 for more on this).
- One of the slowest models tested.
- Vibration is a little uncomfortable.
- Needs a pusher for feeding material through the top chute due to poor flow, but none is provided.



WHAT TO LOOK FOR

■ Machine capacity:

Look for a model that will handle the size of branch you'll need to process, but also consider whether the inlet will accept twisted or branched stems.

■ Clearing blockages:

One of the most important aspects is how easy it is to open the cover to clear a blockage. Unfortunately you'll have to do this fairly regularly, so try it out in the shop.

■ Mulch collection:

Consider the angle at which the material is thrown out, and the size and shape of container you'll need. Of the models tested, only the **ROVER Maxi Muncher 9664** was supplied with a collection bag.

■ Motor brake:

This safety feature automatically stops the motor and blades when the cover is removed.

■ Removable switch:

Another safety feature enables you to detach the on/off control from the machine when it's not in use. This could prevent an unsupervised child from starting the machine.

■ Cover safety lock:

Turns the motor off when the cover is removed, but the blades continue to turn, unlike with a motor brake, which brings the blades to an immediate full stop.

■ Reversible blades:

Reversing the blades extends their working life. All the models tested have them, though on the two **CHIPPER CHOPPER** models, only the upper bar blades are reversible.

Brand / model (in rank order)	Manufacturer / distributor	Target price (\$)*	Origin	Warranty (years)	Type	Weight (kg)	Height (mm)	Maximum branch diameter (mm)
ROVER Maxi Muncher 9664	Rover Mowers	690	Australia	1	Electric	37	1395	32
VIKING GE120	Stihl	645	Austria	1 (A)	Electric	20	1000	30
MASPORT Garden Gobbler A29974	Masport	571	Taiwan	1	Electric	39	1370	38
VICTA Mulchmaker 1800 AH211	Sunbeam Victa Holdings	469	Germany	1	Electric	20	1020	35
AL-KO Dynamic H2200S	Al-Ko International	693	Germany	3	Electric	28	980	35
RYOBI Trisecta Mulchmaker RGS2000	Ryobi Australia	510	Japan	1	Electric	38	1125	40
NOT RECOMMENDED FOR SAFETY REASONS**								
CHIPPER CHOPPER CC3300	Allpower Industries	529	Australia	1	Electric	36	1160	45
CHIPPER CHOPPER CC4000	Allpower Industries	749	Australia	1	Petrol	45 (B)	1180	45

Mulching with ease

Don't overload the machine by trying to force the material through too quickly. Use a sharp pair of secateurs to prune the branches down to the manufacturer's recommended size.

If a pusher isn't supplied, you can make one by cutting the head off an old spade and trimming the handle so it's the right length to push material through while avoiding contact with the blade.

Petrol or electric?

For the average backyard, choosing between a petrol or electric chipper-shredder will likely depend on the size of the branches you need to chop up — bigger models will probably be petrol-powered, while most smaller ones are electric.

One advantage of electric motors is that they're easier to restart after a jam. Petrol engines are often difficult to restart when they're hot. Petrol models don't need extension cords, so you have the freedom to use them anywhere, while electric models are free of messy fuels.

The two **CHIPPER CHOPPER** models in this test allowed a direct comparison between a petrol and electric motor. They're virtually the same except that the **CC3300** has an electric motor and the **CC4000** a petrol one.

There was very little difference between the two. The electric model was a little easier to use, but the petrol model performed just a little better and processed the mulch faster. However, other electric models processed mulch faster than this petrol model.

The petrol **CHIPPER CHOPPER** rated as the second most difficult to use and equal third worst for performance. It was also the equal noisiest (notably noisier than the equivalent **CHIPPER CHOPPER** electric model) and the heaviest.

Do you need a chipper-shredder?

Is it worth buying a chipper-shredder or are you better off hiring one occasionally? It depends on how frequently you're going to use the machine.

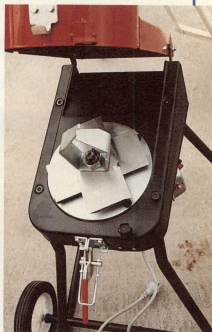
You're unlikely to be able to hire models of this smaller domestic size; a 70 mm chipper-shredder will cost about \$100 per day. That means you'd pay the equivalent of the price of the cheapest model in this test if you hired one for five days. Hiring a 150 mm chipper-shredder costs a lot more, at around \$250 a day.

If you have a garden that produces lots of refuse, it's worth investing in your own chipper-shredder. Even smaller gardens that require lots of pruning can produce enough waste to make owning a mulcher economical. Big gardens that produce lots of large branches may require a chipper-shredder with a larger capacity than those in this test.

Safety matters

Make sure you buy a chipper-shredder with the following safety features:

- You shouldn't be able to reach the cutting blades through the inlet.
- The on-off toggle switch should be removable and the motor should have a motor brake (see *What to look for* on page 45 for more information about these safety features).
- Always wear gloves and ear and eye protection when using a chipper-shredder.
- Be careful when feeding material in because the blade can grab it and drag it through your hands. With any of the models, it would be wise to use a pusher instead of your hand to feed the debris through the machine.
- Always make sure the shredder is stable and on level ground.
- Don't put your hands near moving parts.
- Follow the instructions provided with the machine.
- It's advisable to use a safety switch or isolating transformer with electric models.



All but one of the chipper-shredders in this test have a motor brake that stops the blades as soon as the cover is removed.

	4	5	6	7	8	9	10	
Safety features	Side inlet	Feed pusher	Collection bag	Noise (dB)	Ease of use score (%)	Performance score (%)	Overall score (%)	Brand / model (in rank order)
Motor brake			✓	94	86	81	84	ROVER Maxi Muncher 9664
Motor brake				98	80	77	79	VIKING GE120
Motor brake, removable switch	✓			93	81	73 (D)	77 (D)	MASPORT Garden Gobbler A29974
Motor brake	✓			92	77	74	76	VICTA Mulchmaker 1800 AH211
Motor brake		✓	(C)	87	74	76	75	AL-KO Dynamic H22005
Motor brake, removable switch	✓			93	64	72	68	RYOBI Trisecta Mulchmaker RGS2000
Removable switch	✓			93	70	70	70	CHIPPER CHOPPER CC3300
Motor brake	✓			98	67	73	70	CHIPPER CHOPPER CC4000

* Prices shown are a good target to aim for when shopping around, based on nationwide checks in June 1999.

** The two Chipper Choppers can't be recommended because they allow possible hand contact with the cutting blades.

(A) Warranty is two years if the machine is serviced in accordance with the log book.

(B) With fuel tank empty.

(C) Collection bag available as optional extra.

(D) Although its overall score ranks it third, the Masport isn't in the *What to buy* list (see page 44) because it performed poorly on stringy material.

1 Weight

If you have to move the shredder a long distance, things like a low weight and ease of pushing (which was part of our ease of use rating) will be important.

2 Maximum branch diameter

Chipper-shredders are generally classified by the maximum diameter of branch they can process (most domestic models range from 20 mm to 70 mm).

For this test, we looked at an electric model from each nationally available brand with a maximum diameter of 30 mm to 45 mm.

As a comparison we also tested the only 45 mm petrol model on the market, the **CHIPPER CHOPPER CC4000** (see *Petrol or electric*, left)

3 Safety features

All the models tested had a cover safety lock. A motor brake and removable switch are also desirable (see *What to look for* on page 45 for details).

The two **CHIPPER CHOPPER** models are unsafe to use and aren't recommended because they allow possible hand contact with the moving blades through the inlet chute.

4 Side inlet

Some models have a narrow side inlet, allowing you to feed small branches in this way too.

5 Feed pusher

It's safest to use a pusher instead of your hand to feed the debris into a chipper-shredder because the blades can grab material and pull it through your hands. Only one model came with one, but they're easy to make (see *Mulching with ease*, far left).

6 Collection bag

The models that don't come with a collection bag simply dispense the mulch onto the ground or provide a strap or attachment for a bag (see the profiles on page 45 for details). If there's only a small gap between the ground and the mouth of the shredder and you don't want the mulch to fall on the ground, you'll have to find a flexible bag to collect it.

7 Noise

Noise levels were read at the user's position and are typical of the noise made while material is being processed. It's advisable to wear ear protection when operating a chipper-shredder.

8 Ease of use score

The following factors were assessed in scoring the chipper-shredders for ease of use:

- The clarity and detail of instructions.
- Portability of the machine.
- Ease of starting and stopping.
- Ease of feeding material into the machine.
- Ease of collecting mulch.
- Level of vibration while in operation.
- Level of rebounding (how much material was

flung back out of the feeder chute by the cutting blades).

- Ease of unclogging.

9 Performance score

The performance score was based on an assessment of:

- The speed at which each model processed debris.
- Their efficiency at processing each of the following materials: elderberry, fresh garden mix, newspaper, willow and eucalyptus.

10 Overall score

The overall score is a combination of ease of use and performance, weighted as follows:

- Ease of use: 50%
- Performance: 50%

● RECALLS & BANS

If you find a recall or ban not on our list, please let us know. Companies often rent 1800 numbers for a couple of months after the recall is announced. If the number given is no longer operating, phone the manufacturer or retailer direct.

THE PRODUCT: Hasbro Australia has recalled electronic **Darth Maul double-bladed lightsabers** and electronic **Qui-Gon Jinn lightsabers**.

The problem: The batteries might short-circuit and overheat or rupture if the inner spring dislodges and rubs against them.

What to do: Stop using the lightsaber immediately. Phone Hasbro on 1800 786 096 (9 am to 5 pm EST, Monday to Friday) for a free repair kit that will keep the spring in place.

THE PRODUCT: Astre German Automotive has recalled all **Audi A3 vehicles** produced in 1998–99.

The problem: There's a risk that material insulating the rear seatbelt tensioners could ignite if the seatbelt tensioners are triggered in an accident.

What to do: Contact your Audi dealer to get the insulation material replaced. For further information call 1800 502 834 (24 hours).

THE PRODUCT: Saab has recalled **1992–94 Saab 9000 vehicles** with the following vehicle identification numbers (VIN):

■ **1992:** Y33CD48M1N1001927–Y33CC68B2N1047120;

■ **1993:** Y33CC48B9P1000111–Y33CC65B7P1042308;

■ **1994:** Y33CC68B1R1000117–Y33CC68B5R1032424.

The VIN is on the vehicle's compliance plate, in the engine compartment, and in the owner's manual.

The problem: Moisture could leak into the SRS unit (which activates the airbags and seatbelt tensioners). This could corrode the SRS unit's circuit board, possibly activating its warning lamp or even the airbags and tensioners.

What to do: Contact a Saab dealer for inspection and rectification if necessary. For more information call Saab on (03) 9257 0900 or 1800 333 453.

THE PRODUCT: BP Australia has recalled **Vanellus diesel engine oil** purchased in May or June 1999. The following products are affected:

■ **C3 Multigrade** — batch M9D588, M9E597.

- **C6 Global plus** — M9E584, M9F671.
- **C6 Global** — M9E597.
- **C4 Global** — M9E656, M9E583.
- **C3 Mono 10W** — M9E595.
- **C3 Mono 30** — M9E604.
- **C3 Mono 40** — M9E654.
- **C3 Mono 50** — M9F664, M9E592.

The problem: These products may have an unusual or unpleasant odour, and prolonged exposure could cause headaches or nausea.

What to do: Contact the BP lubricants and fuels technical helpline on 1800 033 558 for advice regarding the recall and immediate draining and replacement of affected products.

THE PRODUCT: Roger Armstrong has recalled **Snuggli Front & Back Pack** soft infant carriers (model no. 075) sold between August 1997 and June 1999.

The problem: A defect in the vertical seat-height adjustment strap may lead to infants shifting in the carrier and falling through a leg opening. Infants under two months of age are at greatest risk.

What to do: Stop using the carrier immediately. Return it to the place of purchase for a refund or replacement with a different-model Snuggli carrier. For more information phone 1800 062 484.

THE PRODUCT: Nestlé Patisserie has recalled **Billabong Chocolate Ice Cream** sold in eight-packs (individual ice creams are unaffected) with a best-before date of 16 Feb 00 in all states and territories except WA.

The problem: Some ice creams may have an unusual taste and could cause an unpleasant sensation in the mouth. The mixture was contaminated with a substance which is part of the normal manufacturing process (there's no health risk).

What to do: Don't eat the ice creams — dispose of them. Return the carton that contained them to the place of purchase for a full refund. For more information call Nestlé on 1800 069 678 between 8.30 am and 6 pm EST, Monday to Friday.

THE PRODUCT: Buell Motorcycle Company (BMC) has recalled:

- **S1 Lightning**
- **S1 White Lightning**
- **M2 Cyclone**
- **S2 Thunderbolt**
- **S2T Thunderbolt**
- **S3 Thunderbolt**
- **S3T Thunderbolt**
- **X1 Lightning**

1995 to 1999 models produced between January 2, 1994, and April 21, 1999. Check your motorbike's documentation to see if it's affected.

The problem: These models may be affected by one or more of the following problems:

- The fuel tank vent valve assembly could become blocked. This could cause the carburettor to overflow, posing a fire risk.
- The sidestand switch (which prevents the user driving off with the sidestand down) could stop working, causing the engine to stall or quit during use.
- The fuel tank could become separated from the motorcycle in a severe collision due to a fault in the fuel tank mount system.
- The swingarm could break, affecting vehicle handling.
- The rear shock absorber eye could break, allowing the vehicle's underside to drag on the ground, which would affect vehicle handling.
- The rear brake line could be susceptible to abrasion. This could lead to loss of brake fluid and rear braking capabilities.
- The engine mounting could come loose, allowing the engine to move slightly. This could be a dangerous distraction to the user, but is not in itself dangerous.
- The negative battery cable could break, possibly causing the engine to stall or quit during use.

What to do: Contact your Buell dealer immediately for rectification or call Morgan and Wacker on (07) 3252 5691 for more information.

THE PRODUCT: Pharmacia & Upjohn has recalled **Dalacin C syrup** 75 mg / 5 mL, batch nos. E26253/2 and E26253/3. This is an antibiotic cough syrup, available only on prescription.

The problem: The two batches are not strong enough to be properly effective.

What to do: Don't take the syrup. Return it to the place of purchase for a refund or call (02) 9848 3000 for more information.

THE PRODUCT: MHG Plastic Industries has recalled all **Eldorado EXR, MXR and RXR Motorcycle Helmets** manufactured since July 1, 1996.

The problem: The helmets don't comply with the mandatory safety standard for penetration, AS 1698-1988. There's a significant risk of head injury to motorcyclists in the event of an accident.

What to do: Don't use the helmets. Call MHG on 1800 069 752 for a refund and more information.

THE PRODUCT: Holden has recalled **1999 VT Commodore series II vehicles (Executive, Acclaim, Berlina, S and SS but not Calais)** with vehicle identification numbers (VIN) L464495 to L473691 inclusive (built

between May 27, 1999, and June 22, 1999). The VIN is on the dashboard and can be seen through the windscreen on the passenger's side.

The problem: On some vehicles, a manufacturing fault in the steering componentry could reduce steering control.

What to do: Contact your Holden dealer for inspection and rectification if necessary. Call 1800 033 349 for more information.

THE PRODUCT: Warner Lambert Consumer Healthcare has recalled **Dymadon Drops 2 months–2 years**, 50 mL, a pharmacy medicine for infants.

The problem: The plastic dropper included with the medicine may break during use.

What to do: Don't use the dropper — discard it. For a replacement dropper or further information call Warner Lambert on 1800 648 975.

THE PRODUCT: Yamaha has recalled all **1998 and 1999 YZF-R1 motorcycles**. The affected vehicles have vehicle identification numbers (VIN) JYARN0154W A000004 to JYARN015XW A001623. The VIN is stamped on the steering column.

The problem: Two coolant hoses could leak, allowing coolant to spill onto the rear tyre or steam to be released from the cooling system, obscuring the driver's vision.

What to do: Contact any Yamaha dealership immediately to arrange rectification. For more information call Yamaha in your state:

- NSW / ACT (02) 9757 0011.
- Qld (07) 3399 0888.
- SA / NT (08) 8359 0155.
- Vic / Tas (03) 9702 4400.
- WA (08) 9455 4444.

THE PRODUCT: Century Foldaway Baby Products has recalled the following **child car seats**:

■ **Century model 5500 Contour**, batches NC, WJ and PJ, on sale from October 1998.

■ **Century model 5600 SmartMove**, batches OD, OC, UJ and YE, on sale from July 1998.

■ **Century model 6500 Ovation**, batches ND and RI, on sale from July 1998.

The batch number is on a label stuck to the base of the car seat.

Century says models on sale from August 4, 1999, have already been modified.

The problem: Routine testing shows that some of these seats' harnesses will 'give' more in an accident than is acceptable to the company.

What to do: Contact Century on 1800 997 386 to arrange modification of the harness adjuster.

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Overseas, a one-year personal subscription costs \$62 incl. postage; \$116 for two years. These prices are for subscriptions starting with the October 1999 issue (see below).

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1 year 49.60 Company/institution			
2 years 96.00			

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Conditions apply to the draw: call (02) 9577 3399 for details.

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Manager: Raja Rajagopal. **Contact:** Jeanette Dwyer on (02) 9577 3399.



October 1998 — September 1999

For space reasons, the index generally doesn't include Choice Cuts, many other small pieces, and Recalls and Bans.

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theHARD word

Helpful information

FRIDGE and FREEZER
MICROWAVE REHEATABLE

Remove lid before use
Airtight • Stackable
QUALITY FOOD STORAGE
MADE IN AUSTRALIA



It's hard to imagine being able to use a food storage container without removing the lid. But thanks anyway for the tip.

Where's the berry?

Don't be fooled by the cherry and strawberry on the label — the only thing that looks even vaguely like berries in SPC's Wildberry Chill is cochineal colouring.

INGREDIENTS: PEAR, PEAR JUICE, VITAMIN C, NATURAL FLAVOURS, NATURAL COLOUR (COCHINEAL). NO ARTIFICIAL COLOURS OR FLAVOURS. NO PRESERVATIVES.

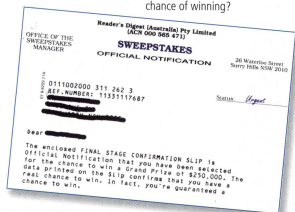
How about a little help?

The hard word would like to thank all the readers who've responded with examples of outrageous ads, promotions and products. Thanks to J Ball, D Beath, N Fordham, O Fuchs, J Maratos, P Mason, K Ryan and D Saxby for their contributions to this month's *The hard word*. Please keep sending them in.

If you have any examples that you think deserve to be on this page, send them to *The hard word*, CHOICE, 57 Carrington Road, Marrickville 2204, or email your suggestions to thehardword@choice.com.au.

Pardon our naivety ...

... but doesn't entering a competition *always* guarantee you a chance of winning?



New linguistic phenomenas

Does the rise of republicanism in Australia have to lead to a deterioration in the Queen's English?

We all know 'dice' is the plural of 'die', so 'dices' is, in effect, a double plural. While we're prepared to concede that most people call a 'die' a 'dice', we do draw the line at 'dices'.



Who'd want to protect their cavities?



AMAZING INNOVATION #384



A waterproof showercap! What will they think of next?

Breaking the bank

Why did American Express go to the trouble and expense of sending out a bill for one cent? And how exactly do you pay one cent anyway? Write a cheque and pay a relative fortune in charges and postage?

